

No. 12689

United States
Court of Appeals
for the Ninth Circuit.

SHEFF WHITE, ORLAND WHITE and JOE
M. WHITE,

Appellants,

vs.

UNITED STATES OF AMERICA,

Appellee.

Transcript of Record

In Two Volumes

Volume I

(Pages 1 to 516)

PAUL P. O'BRIEN,

CLERK

Appeals from the United States District Court,
for the District of Oregon.

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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in *italic*; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in *italic* the two words between which the omission seems to occur.]

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OF RECORD

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United States Court House,
Portland, Oregon,
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In the District Court of the United States
for the District of Oregon

Civil Action File No. 3669

SHEFF WHITE, ORLAND WHITE and JOE M.
WHITE,

Plaintiffs,

vs.

THE UNITED STATES OF AMERICA,

Defendant.

COMPLAINT

Comes now the above named plaintiff and for
cause of action against the defendant alleges:

I.

That the acts and omissions herein complained of
happened and occurred within the State of Oregon
and the Judicial District above entitled, and this
action is brought against the defendant pursuant to
the provisions of the "Torts Claims Act," passed by
the Congress of the United States on August 2nd,
1946.

II.

That the plaintiffs are the owners of the lands
hereinafter described, and during the crop season of
1946 was entitled to the exclusive possession thereof
and of the crops, issues, emblements and profits
derived therefrom.

III.

That said lands are arid in character and require artificial irrigation for the production of crops; but, when irrigated, said lands produce large and abundant agricultural crops commonly grown in the vicinity of said land.

IV.

That for the purpose of securing an adequate supply of water for the irrigation of said lands, the owners thereof caused said lands to be included within the boundaries of the Owyhee Irrigation District hereinafter described; that said Owyhee Irrigation District is a quasi-municipal corporation, organized under the laws of the State of Oregon pertaining to irrigation districts, and that by reason of said lands being included within the boundaries of said district, and because of the provisions of the statutes of the State of Oregon, said lands were entitled to have delivered thereon such proportionate amount of the water stored and distributed by the defendant through said system as could be beneficially used on lands properly prepared for irrigation, which plaintiff alleges to be four acre feet of water during each irrigation season for the irrigation thereof.

V.

That all the taxes and charges of every nature which had been assessed against said lands were timely paid so as to entitle the plaintiff to have delivered to said lands the water which was appur-

tenant thereto because of said lands being within said irrigation district.

VI.

That heretofore, and during the year 1930 and prior thereto, the defendant United States of America, acting by and through the Department of the Interior and Bureau of Reclamation as agencies and departments of said defendant, caused to be constructed in the State of Oregon, the dams, tunnels, canals, headgates, spillways, laterals and all other means and methods for storing, impounding and distributing the waters of the Owyhee River for the purpose of irrigating lands in Oregon and Idaho, pursuant to and as authorized by the statutes enacted by the Congress of the United States, and the rules, regulations and orders of said Department of the Interior and Bureau of Reclamation aforesaid, and the officers agents, directors and employees of said agencies, which irrigation and storage works have been, by said defendant, designated, and shall be hereinafter referred to, as the Owyhee Project.

VII.

That heretofore and prior to the acts and omissions complained of, the defendant, acting through the Department of Interior and Bureau of Reclamation as the agencies and departments of said defendant, entered into a contract with said Owyhee Irrigation District for the storage, impounding and distribution of the waters appurtenant to the lands within

said district, and particularly the lands herein described.

That said contract was so made pursuant to Sec. 125-308 O. C. L. A. and of the Act of Congress of the United States of America, entitled "An Act to Promote Reclamation of Arid Lands," approved August 11, 1916.

VIII.

That in said contract, among other things, it is provided:

"Sec. 14: The District, together with other districts and/or organizations which enter into contract with the United States to secure water from the works of said Owyhee Project, and agree to pay a proportionate share of the costs of said project, shall, through and by means of the Board of Control provided for herein, at the expense of the districts and/or other organizations represented on the said Board of Control, and without expense to the United States operate and maintain the works described in Article 8 hereof, after the construction thereof by the United States and notice from the Secretary that said works or any part thereof must be taken over by the said parties and shall keep a capable person in charge thereof."

That said notice from the Secretary above mentioned was not given prior to July 12th, 1946, and has not been given by said Secretary prior to the commencement of this action.

IX.

That at all of the times herein mentioned the said defendant, United States of America, acting by and through the Department of the Interior and Bureau of Reclamation and the agents, officers and employees of said agencies of the defendant, United States of America, has, pursuant to the provisions of said contract with the Owyhee District, assumed and retained the exclusive operation and control of the dam, outlets, gates, canals, ditches, headgates and laterals of said Owyhee Irrigation project (situated in Oregon and Idaho, and known as the Owyhee Irrigation Project) and at all the times hereinafter mentioned, said defendant, United States, by and through said agencies, to-wit: the Department of the Interior, Bureau of Reclamation and the officers, directors, agents and employees of said agencies, were in active and exclusive control of all the works and means of storing, impounding and distributing the water of the Owyhee River by and through said Owyhee Project for the purpose of irrigation as aforesaid.

X.

That at all the times herein mentioned, said defendant had impounded in its dams, reservoirs and canals aforesaid, and under the control of said defendant, its agents and employees, ample and sufficient water to adequately irrigate all of the lands which said defendant was obligated to deliver water to, including the lands of this plaintiff herein described, and defendant's failure to so deliver water

to this plaintiff was on account of the negligent and wrongful acts and omissions of the agents and employees of the defendant while acting within the scope of their employment, and not otherwise.

XI.

That beginning on the 12th day of July, 1946, and for a period of approximately three weeks thereafter, the said defendant, its officers, agents and employees, while acting within the scope of their employment, negligently and wrongfully, and through the negligent and wrongful acts and omission of the employees of said defendant, failed and neglected to deliver to the lands of this plaintiff any water for the irrigation of said land during said period of time; and because thereof, plaintiff did not receive his proportionate share of the water available for distribution during the irrigation season of 1946, and did not receive an adequate amount to efficiently irrigate his said land.

XII.

That said defendant, its agents and employees, while acting within the scope of their authority, and in the management of said ditch and distribution of said water, were negligent and careless in the following particulars, which negligence was the direct and proximate cause of plaintiff's loss and damage, that is to say:

A. That the canal on said Owyhee Project which conveys water to the lands of the plaintiff, herein-

after described, was constructed over a porous type of soil, which permitted water to seep through the bottom and sides of said canal in a manner and to the extent that the stability of said canal was greatly endangered; and for a long time prior to the acts and omissions herein complained of, and particularly during the time between the months of February, 1945, and July, 1946, said canal, for the reasons aforesaid, was in danger of breaking, and thus preventing the flow of water for the irrigation of plaintiff's lands.

That the condition of said canal was well known to the officers and employees of the defendant, or by the exercise of reasonable care could have been ascertained and known to said agents and employees. That said defendant, its agents and employees, while acting within the scope of their employment, carelessly and negligently allowed and permitted said canal to remain in such dangerous condition, and carelessly and negligently failed to repair the same; and, as a direct and proximate result of said negligence, said canal broke on or about the 12th day of July, 1946, allowing the water to escape therefrom, and away from plaintiff's lands.

B. That said defendant, its agents and employees, while acting within the scope of their employment, were further negligent in the operation of said canal in the further following particulars:

That thereafter and following said break, the defendant, acting through its agents and employees and within the scope of their authority, attempted to repair the said break in said canal; but said

defendant, its agents and employees, while so acting in the scope of their employment in repairing said break and at a time before the sides of said canal were reconstructed, and without improving or sealing the sides and bottom of said canal in such a manner as to prevent further leakage or washing away, carelessly and negligently turned into said canal a large and excessive amount of water and thereby washed away a large portion of said canal in such manner and to such extent that said defendants were unable to deliver any water to the plaintiff for the irrigation of his said lands for a period of three weeks as herein complained of.

That the effect of turning water into said canal prior to the repair thereof was well known to said defendant, its agents and employees, while acting within the scope of their employment, or by the exercise of diligence could have been ascertained and known by said agents and employees.

XIII.

That all of plaintiff's lands, to which water has heretofore been applied for irrigation, are fertile, of good soil and favorably located for the growing of agricultural crops; and, had the defendant furnished the plaintiff the amount of water to which plaintiff was entitled to, said lands would have produced large and abundant agricultural crops.

XIV.

That said real property so farmed by the plaintiff and more particularly described in Exhibit A was

thoroughly plowed, cultivated and prepared for planting during the planting season of 1946; and the total acreage thereof, as set forth in said Exhibit A, was timely planted to the various crops described in said Exhibit A, and thereafter cultivated, irrigated and cared for in a good and husbandlike manner.

That thereafter, the plaintiff timely harvested all of the crops grown on said lands during the crop season, and saved all of said crops; and herein, in Exhibit A, plaintiff has set forth the total amount of such crop and emblements which were actually produced on said lands.

XV.

That plaintiff had no other source of water for the irrigation of said lands; and during the period of time between July 12, 1946, and August 5th, 1946, there was no rainfall in the vicinity of said lands, and for that period of time said lands were wholly without water for irrigation or moisture of any kind.

XVI.

That by reason, and as a direct and proximate result of the defendant's failure to furnish such water to the plaintiff for the period of time aforesaid, said lands became dry and arid and all of the crops which plaintiff had growing thereon, and which are more particularly hereinafter described, withered and failed to grow or mature, to the plaintiff's loss in the amounts hereinafter alleged.

XVII.

That attached hereto and marked "Exhibit A" is a statement describing the lands to which plaintiff was entitled to have water delivered, the kind of crop plaintiff had planted, the normal yield of said crops when adequately irrigated, the amount of crops actually produced, the cost of production, the actual production, the net value of the crops produced, and plaintiff's loss because of the failure of normal production caused by the defendant's failure to deliver water to plaintiff, and plaintiff's damages as a result thereof, which Exhibit is hereby referred to and by such reference made a part of this complaint.

Wherefore, plaintiff prays for judgment in the amount of such damages, to wit: the sum of \$4,000.00. together with plaintiff's costs and disbursements herein expended and taxable.

/s/ P. J. GALLAGHER,

Attorney for the Plaintiff.

Exhibit A

The description of plaintiff's land referred to in the foregoing complaint is:

West Half of the Southwest Quarter of Sec. 36. Twp. 18 S. R. 46 E. W. M. in Malheur County, Oregon.

The plaintiff had planted and growing on said lands the following:

30 acres of Ladino clover

20 acres of alfalfa hay

49 acres of beets

The normal yield of said crops if adequately irrigated and the reasonable market value thereof would be:

5400 lbs. of Ladino clover @ \$1.50 per lb.	\$ 8,100.00
60 tons of alfalfa hay @ \$18.00 per ton	1,080.00
980 tons of beets @ \$13.50 per ton	13,330.00

Total normal yield	\$22,510.00
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The reasonable cost of planting, cultivating, irrigating and harvesting of said crops was.....	6,809.00
---	----------

\$15,700.90

Because of the shortage of water for irrigation plaintiff produced only the following crops of the reasonable value of:

No Ladino clover (total loss).

40 tons of alfalfa hay @ \$18.00	\$ 720.00
--	-----------

813.4 tons of beets @ \$13.50	10,980.90
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<u>\$11,700.90</u>	\$11,700.90
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Total net loss	\$ 4,000.00
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The plaintiff's loss because of shortage of water complained of and the reasonable market value of each crop was:

5400 lbs. of Ladino clover @ \$1.50 per lb.	\$ 8,100.00
20 tons of alfalfa hay @ \$18.00 per ton	360.00
166.6 tons of beets @ \$13.50 per ton	2,249.00

Total loss in amount and value.....	\$10,709.00
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Less cost of production	6,809.00
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<u>Plaintiff's damages</u>	<u>\$ 4,000.00</u>
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Affidavit of service by mail attached.

[Endorsed]: Filed July 2, 1947.

[Title of District Court and Cause.]

ANSWER OF THE DEFENDANT, THE
UNITED STATES OF AMERICA, TO THE
COMPLAINT FILED IN THE ABOVE-
ENTITLED CASE

I.

First Defense

The complaint fails to state facts sufficient to constitute a cause of action against the defendant upon which relief can be granted.

II.

Second Defense

It is shown on the face of the complaint that the Court lacks jurisdiction to hear or entertain the complaint as laid under the Federal Tort Claims Act (28 U.S.C., 921 et seq.).

III.

Third Defense

It is shown on the face of the complaint that the alleged negligence for which the plaintiffs seek to recover involved acts on the part of the employees of the United States of America which were wholly discretionary in character and for which the United States has not consented to be sued under the provisions of the Federal Tort Claims Act (28 U.S.C., 921 et seq.) or otherwise.

IV.

Fourth Defense

The defendant denies each and every allegation in paragraph I of the complaint.

V.

The defendant does not have knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph II of the complaint and therefore denies them.

VI.

The defendant denies each and every allegation in paragraph III of the complaint.

VII.

The defendant does not have knowledge or information sufficient to form a belief as to the truth of the averments in paragraph IV of the complaint respecting the action of plaintiffs to include the lands described in the complaint in the Owyhee Irrigation District and therefore denies them; the defendant admits that the Owyhee Irrigation District is a quasi-municipal corporation organized under the laws of the State of Oregon, denying, however, that the said defendant, the United States of America, had a duty by reason of the statutes of the State of Oregon or otherwise to deliver water to the plaintiff.

The defendant refers to paragraph I contained in its motion to make more definite and certain filed

September 24, 1947, requesting this Court to order the plaintiff to set forth the provisions of the statutes of the State of Oregon which it is averred in paragraph IV of the complaint entitle the lands of the plaintiff to a proportionate share of water stored or developed by the irrigation system of the Owyhee Irrigation Project, and reiterates that request to the Court.

VIII.

The defendant does not have knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph V of the complaint and therefore denies them, referring however to paragraph II of its motion to make more definite and certain filed September 24, 1947, requesting this Court to order the plaintiff to state specifically the taxes and charges referred to in the aforesaid paragraph V of the complaint, and reiterates that request to the Court.

IX.

The defendant admits the construction of the Owyhee Irrigation Project as alleged in paragraph VI of the complaint but refers to the request contained in paragraph III of its motion to make more definite and certain filed September 24, 1947, requesting the Court to require the plaintiff to state specifically the statutes, rules and regulations and orders of the Department of the Interior and Bureau of Reclamation relied upon in the aforesaid paragraph VI of the complaint, and reiterates that request to the Court.

X.

The defendant admits that it entered into a contract with the Owyhee Irrigation District as alleged in paragraph VII of the complaint but refers to paragraph IV of its motion to make more definite and certain filed September 24, 1947, requesting this Court to order the plaintiff to set forth in its entirety the contract referred to in the aforesaid paragraph VII of the complaint, and reiterates that request to the Court.

XI.

The defendant admits that there is contained in its contract with the Owyhee Irrigation District the section 14 which is quoted in paragraph VIII of the complaint but refers to paragraph V of its motion to make more definite and certain filed September 24, 1947, requesting that the plaintiff be required to set forth in its entirety the contract referred to, and reiterates that request to the Court.

XII.

The defendant admits the allegations contained in paragraph IX of the complaint but refers to paragraph VI of its motion to make more definite and certain filed September 24, 1947, requesting the Court to order the plaintiff to set forth with particularity the contract and the provisions referred to in the aforesaid paragraph IX of the complaint, and reiterates that request to the Court.

XIII.

The defendant denies each and every allegation set forth in paragraph X of the complaint and refers to paragraph VII of its motion to make more definite and certain filed September 24, 1947, requesting this Court to order the plaintiff to set out with particularity the acts of negligence referred to in the aforesaid paragraph X and likewise to set forth in their entirety any and all contracts relied upon by plaintiff in that paragraph, and reiterates that request to the Court.

XIV.

The defendant denies each and every allegation set forth in paragraph XI of the complaint and refers to paragraph VII of its motion to make more definite and certain filed September 24, 1947, requesting this Court to order the plaintiff to set out with particularity the acts of negligence referred to in the aforesaid paragraph XI and likewise to set forth in their entirety any and all contracts relied upon by plaintiff in that paragraph, and reiterates that request to the Court.

XV.

The defendant denies each and every allegation contained in paragraph XII of the complaint and refers to paragraph VIII of the motion to make more definite and certain filed September 24, 1947, by the defendant requesting this Court to order the plaintiff to set forth specifically the duty the United

States owed to provide against the acts of negligence alleged by the plaintiff in the aforesaid paragraph XII of the complaint, and reiterates that request to the Court.

XVI.

The defendant does not have knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph XIII of the complaint and therefore denies them.

XVII.

The defendant does not have knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph XIV of the complaint and therefore denies them.

XVIII.

The defendant does not have knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph XV of the complaint and therefore denies them.

XIX.

The defendant denies each and every allegation contained in paragraph XVI of the complaint.

XX.

The defendant denies each and every allegation contained in paragraph XVII of the complaint.

XXI.

Fifth Defense

The defendant adopts and reiterates each and every averment contained in the Fourth Defense set forth in this answer and alleges that if the plaintiff in fact experienced the damages stated in the complaint filed in this action that those damages arose from hidden defects in the construction of the canal involved or in the soil over which that structure was built concerning which the defendant had no knowledge and against which it could not guard.

Wherefore, the defendant prays judgment that the complaint of the plaintiff be dismissed and that defendant recover its costs and disbursements herein incurred.

Dated at Portland, Oregon, October 20, 1947.

/s/ HENRY L. HESS,

United States Attorney,

Attorney for the Defendant.

Duly verified.

Certificate of Service by Mail attached.

[Endorsed]: Filed October 20, 1947.

[Title of District Court and Cause.]

PRE-TRIAL ORDER

A pre-trial conference having been duly held on the 2d day of December, 1947, at Vale, Oregon, the plaintiffs appearing in person and by counsel,

Messrs. Gallagher and Gallagher; and the defendant appearing by its counsel, Henry L. Hess, United States District Attorney, Victor E. Harr, Assistant United States Attorney, Linus M. Fuller, Special Assistant to the United States Attorney, and W. H. Veeder, Attorney, Department of Justice; the following proceedings were had, to wit:

Agreed Facts

The following admissions were made between the parties through their respective counsel:

1. The lands involved in this case are described as follows: W $\frac{1}{2}$ SW $\frac{1}{4}$ of Sec. 36, T. 18 S., R. 46 E.W.M., and the irrigable area thereof is arid in character and is situated within the boundaries of the Owyhee Reclamation Project constructed by the defendant pursuant to the Federal Reclamation Laws, being the Act of June 17, 1902 (32 Stat. 388) as supplemented and amended.

2. The irrigable lands involved in this case are situated within the boundaries of the Owyhee Irrigation District, a quasi-municipal corporation, organized and existing pursuant to the laws of the State of Oregon.

3. The defendant and the Owyhee Irrigation District, a quasi-municipal corporation, entered into a contract dated October 14, 1926 (hereinafter referred to as the 1926 contract), which contract provided among other things, that irrigable lands within the district are entitled to delivery of the propor-

tionate share of water actually available under the Owyhee Reclamation Project each irrigation season but not more than required for beneficial use on the lands. The defendant, during the 1946 irrigation season, had water available to deliver a maximum of four acre feet per irrigable acre for the minimum charge.

4. It was covenanted and agreed by and between the defendant and the Owyhee Irrigation District in the 1926 contract, among other things, that the said Owyhee Irrigation District would indemnify and hold harmless the defendant against any and all costs arising from the construction, operation and maintenance of the irrigation system constructed by the defendant to reclaim and serve the irrigated acreage within the said Owyhee Irrigation District and that the provisions pursuant to which the said district so stipulated are set forth in part in Sections 17 and 44 respectively, as follows:

Computation of Costs

The cost of which under this contract the District obligates itself to pay a pro rata share, as determined by the Secretary, shall embrace all expenditures of whatsoever kind, in connection with, growing out of, or resulting from the work described, including the cost of labor, material, equipment, engineering and legal work, superintendence, administration and overhead, right of way, property and damage of all kinds, and shall include all sums expended by the United States in surveys and investigations in connection with the irrigation of the

project lands, both prior to and after the execution of this contract, and the expense of all soil investigations and other preliminary work and land appraisal provided for in Articles 41 and 42 hereof, and shall also include the expense incurred by the United States in operating or maintaining any of said works prior to the taking over of the operation and maintenance thereof by the said Board of Control provided for herein as the operating agent of this District and the other districts which may by contract with the United States become entitled to receive water from said works.

Shortage of Water

On account of drought, inaccuracy in distribution, or other causes, there may occur at times a shortage in the water supply for lands of the District, and while the United States will use all reasonable means to guard against such shortage, in no event shall any liability accrue against the United States, its officers, agents or employees for any damage, direct or indirect, arising therefrom, nor shall any obligation provided for herein be reduced because of any such shortage or damage.

5. The said 1926 contract likewise provided that every landowner within the Owyhee Irrigation District would be considered to have consented to the provisions of the aforesaid contract and to have been bound by the terms and conditions thereof, if he did not object to the confirmation of the contract by the Court having jurisdiction thereof or the proceedings authorizing the same, or if he received and

used water made available through the irrigation works of the Owyhee Project, as provided in Section 32 of said contract, as follows:

Accepting benefits waives objection

Every landowner of the District who offers no objection to the confirmation of this contract by the court, or the proceedings authorizing the same, or who accepts the benefits thereof by receiving or using water made available through the works constructed by the United States, thereby consents to all the provisions of this contract and waives any objection thereto.

6. The plaintiff, Sheff White, entered into a contract with the Owyhee Irrigation District dated December 29, 1941, ratifying, confirming and consenting to the terms of the 1926 contract between the defendant and the Owyhee Irrigation District, binding himself, his heirs, successors and assigns and so binding the irrigable lands described and involved herein, to all the terms and conditions of the 1926 contract.

7. A decree was duly made and entered in the Court having jurisdiction thereof, validating the proceedings relative to the organization of said Owyhee Irrigation District and confirming all of the terms and conditions of the 1926 contract entered into by and between said district and the defendant.

8. Neither the plaintiffs or their predecessors in interest objected to the confirmation of said 1926 contract between the defendant and the Owyhee

Irrigation District or the proceedings authorizing the same at the time of the confirmation of the contract by the Court nor at any time, but to the contrary, the plaintiffs and/or their predecessors in interest have utilized irrigation water and have accepted the benefits which have been provided pursuant to the 1926 contract and have enjoyed all of the benefits available under said contract.

9. Decrees were duly entered by courts of competent jurisdiction, confirming contracts between the defendant and the following districts:

Gem Irrigation

District.....Dated October 14, 1926

Ontario-Nyssa Irrigation

DistrictDated February 5, 1927

Payette-Oregon Slope Irrigation

DistrictDated October 14, 1926

Crystal Irrigation

DistrictDated November 28, 1931

Bench Irrigation

DistrictDated October 5, 1931

Slide Irrigation

DistrictDated October 14, 1926

Advancement Irrigation

DistrictDated September 1, 1936

Each of the contracts between the defendant and the above-named irrigation districts contains provisions similar in substance to those contained in

the contract of 1926 between the defendant and the Owyhee Irrigation District and each contains paragraphs identical in substance with Paragraph 17, 44 and 32 set forth above.

10. During all of 1946, the defendant was in control of and operating the Owyhee Reclamation Project, including the north canal of the Owyhee Project, which canal is approximately 70 miles long. A break occurred in the north canal on Sunday, July 14, 1946, at a point approximately 36.15 miles from the head of the canal and near the west line of and in Sec. 1, T. 19 S., R. 46 E., W.M. The break was approximately 50 feet wide at its widest point. The water in the canal, which could not be diverted from the canal above and below the break, drained out of the canal through the break, and repair work was commenced. On Thursday, July 18, 1946, repairs had progressed to a point where the engineer in charge of the repair work ordered water turned into the canal, which was done. A second break occurred at approximately 1:30 a.m., July 19, 1946, downstream from the first break. The canal was repaired and being operated under full capacity on the 31st day of July, 1946.

11. Plaintiffs make claim for damage in this proceeding in the sum of \$4000.00 for failure to deliver water to the lands hereinbefore described.

12. The water assessment levied by the Owyhee Irrigation District against the irrigable lands described herein was paid by plaintiffs prior to July 14, 1946.

13. That the seven irrigation districts named in paragraph 9 above and the Owyhee Irrigation District comprise all the irrigation districts forming the Owyhee Reclamation Project.

Plaintiffs' Contentions

Plaintiffs contend:

1. That by reason of their irrigable lands being within the boundaries of the irrigation district, and the payment of charges assessed, they were entitled to have water delivered to their irrigable lands in quantities and at intervals that would reasonably insure an adequate supply of water for the irrigation of their crops.

2. That because the defendant retained the management and control of the water serving facilities of its project by its contract with the Owyhee Irrigation District, it was the duty of the defendant to furnish this water to the plaintiffs.

3. That the failure to furnish available water for the period shown by the record, or approximately three weeks, under surrounding circumstances and conditions, amounted to a violation of that duty and such failure to deliver water was the direct and proximate cause of plaintiffs' damage.

4. That the defendant recognized the plaintiffs (and other landowners) as the real parties in interest in its contract with the Irrigation District of which plaintiffs' land were a constituent part, and that such contract was in fact made for the use and benefit of the plaintiffs (and other landowners).

5. That because of requiring the Irrigation District to collect water service charges from the plaintiffs, and forbidding the delivery of water to the landowners in default of such payments, the defendant has made the plaintiffs indispensable parties to the performance of the contract with the Irrigation District.

6. When the defendant required the confirmation of the contract by an affirmative vote of a majority of the landowners within the irrigation District, it in fact was contracting with the respective landowners.

7. The duty to deliver water was a duty owed the plaintiffs and not a duty owed to the Irrigation District as a separate entity.

8. That when the plaintiffs paid their water charges to the defendant or to the irrigation district for the defendant, they then became parties to the contract and entitled to the benefits of performance.

9. Upon accepting the annual charge for delivery of water for the respective year, a relationship was created between the defendant and the plaintiffs, a violation of which would entitle the plaintiffs to pursue a claim for injury because of a violation of such duty.

10. The Federal Tort Claims Act (28 U.S.C. 931) affords a remedy "on account of damages to or loss of property * * * caused by the negligent or wrongful act or omission of any employee of the Government * * * under circumstances where the United States, if a private person, would be liable

to the claimant for such damages * * * in accordance with the law of the place where the act or omission occurred.”

It is immaterial to the prosecution of a claim for injuries against the defendant whether the claim was founded on a contract, or based upon a tort as understood by common law. It is likewise immaterial to the right to recover that the relationship between the plaintiffs and defendant be one of contract or trespass.

The fact that plaintiffs have referred to the “Torts Claims Act” in the jurisdictional allegation of their pleading, merely refers to the popular name of the Act as indicated by Congress, and is not an indication that the claim must be based either on a tort or a contract.

11. Plaintiffs are entitled to prove a contractual relationship as a basis of defendant’s duty, and plaintiffs’ right of recovery for a violation of such duty, and by so doing they do not make an election to proceed under any other or different federal statute.

12. So long as the facts relied upon justify relief under the provision of the Act of Congress of August 2, 1946, (Sec. 931, Title 28, U.S.C.A.) plaintiffs should not be put to an election between this and some other, or different, act.

13. It is not necessary that plaintiffs prove the elements of a “tort,”—if they establish that the act complained of was negligent or the acts or omissions were wrongful, they are entitled to relief.

14. If the facts as developed indicate the plaintiffs' claims are founded upon a contractual relationship and not because of negligence or a wrongful act or omission of an employee of defendant, then plaintiffs would be entitled to relief under the Act of Congress popularly known as the Tucker Act, and relief can be granted in accordance with the terms of that act.

15. It is our contention that Sec. 931, Title 28, U.S.C.A. makes the United States liable in all cases where an individual would be liable and this liability is to be determined by the law of Oregon, and in this state, in the event of a wrong arising out of a contractual relationship, the injured party can waive the contract and sue in tort.

16. It is immaterial whether the action be considered as one of contract or of tort. The negligent or wrongful failure to deliver the proportionate share of water to which the plaintiffs were entitled is the gist of the claim.

17. It is plaintiffs' contention that if there be a duty on defendant to furnish water to plaintiffs that defendant has no discretion as to whether or not it will respond to that duty. The defendant having entered upon the performance of that duty by delivering water or by the operation of the distributing system, it has no discretion to perform that duty in a negligent manner, or to avoid the reasonable performance of that duty by its wrongful act or omission.

If the defendant had the right to deliver or not to deliver water, a discretion might be exercised. If the discretion was wrongfully exercised, an actionable wrong would ensue. Having exercised the discretion, if one existed, and in the act of delivering water, some act or thing was to be done by defendant, it would be under the duty of performing that act or thing in a reasonable and prudent manner.

18. It is plaintiffs' contention that the contracts having established, and it being admitted by the defendant, that plaintiffs' land described herein being entitled to receive water for the irrigation of said land, and the defendant having water available for delivery, the failure of the defendant to deliver would be an actionable wrong for which plaintiffs would be entitled to recover under the Tort Claims Act.

19. Plaintiffs further contend that hidden defects in the soil in which the structure was built is not a defense available to the defendant.

20. Plaintiffs contend that they had planted the following crops on the following number of acres, to wit: 30 acres of land in clover, 20 acres of alfalfa and 49 acres of sugar beets; that all of said lands were irrigable and entitled to receive the proportionate share of water available therefor in the Owyhee Project; that had said lands received such proportionate share of water, there would have been produced on said lands 5,400 lbs. of ladino clover, 60 tons of alfalfa hay and 980 tons of sugar beets, of a gross value of \$8,100.00 for ladino clover seed,

\$1080.00 for hay and \$13,330.00 for sugar beets; that because of the water shortage caused by the breaks in defendant's ditch, there was actually produced only the following crop: No ladino clover seed, 60 tons of hay of the total value of \$720, and 813.4 tons of beets of the value of \$10,980.90; and that after deducting the sum of \$6,809.00 for the cost of production, plaintiffs' net loss because of defendant's failure to deliver water is the sum of \$4,000.00.

21. Plaintiffs contend that defendant's negligence is not imputable to any of the irrigation districts having contracts with the defendant under the Owyhee Project.

22. Plaintiffs contend that there is nothing in any of the contracts between the defendant and any of the irrigation districts contracting with the United States under the Owyhee Project which would exempt the defendant from liability for its negligent or wrongful act or omission, or that would justify the defendant in seeking indemnity from the result of such negligent or wrongful act or omission from the Owyhee District or any other district contracting with the defendant under the Owyhee Project.

23. Plaintiffs contend that the provisions of any contract attempting to exempt from or indemnify against future negligence of the defendant are illegal and void.

24. Plaintiffs contend that the provisions of any contract attempting to exempt from or indemnify

against future negligence of the defendant would be against public policy and therefore void.

25. Plaintiffs contend that contracts exempting from liability for negligence are not favored by law. They are to be strictly construed against the party relying on them, and clear and explicit language in the contract is required to absolve such person from liability.

26. Plaintiffs contend that in the construction, management and operation of the Owyhee Project the defendant was acting in a proprietary capacity, and not in a governmental capacity.

27. Plaintiffs contend that it is not within the power or authority of an irrigation district organized under the laws of the State of Oregon to contract with the defendant to exempt the defendant from its negligence or to indemnify the defendant from the result of such negligence, and that such a contract would not bind the plaintiffs.

28. Plaintiffs contend that because of the two breaks occurred so closely together in point of time and location that the resulting damage occurring therefrom could not be distinguished as to each break.

Defendant's Contentions

1. The United States of America, in determining the course, elevation and location of the canal and the manner and extent of lining or other treatment of the foundation or soil over which the canal was constructed, was exercising a strictly discretionary

governmental function of the highest character which is specifically exempt under the provisions of the Federal Tort Claims Act (28 U.S.C. 943 (a)).

2. In the selection of the plan of construction of the north canal in which the break occurred, the United States was exercising a strictly discretionary governmental function of the highest character.

3. The United States, in constructing the Owyhee Reclamation Project, was exercising its constitutional authority to reclaim its arid lands, thus making them habitable.

4. In making its determination respecting the location, type of construction, course and elevation of the canal, the United States was guided by the consideration of the greatest number of acres which it could reclaim for occupancy at the lowest cost per acre and within the contractual limit of expenditures for construction provided by the 1926 contract with the Owyhee Irrigation District.

5. In operating and maintaining the canal, the United States was likewise exercising the highest type of discretion.

6. The methods used in repairing each of the breaks in the north canal and the material utilized in accomplishing that repair were matters of engineering judgment involving the highest type of discretion. Similarly, the quantity of water and the manner of introducing a flow of water into the canal after the first break had been repaired were matters of engineering judgment involving discretion of the highest character.

7. The second break was not caused in any respect by the first break or the operations in connection with the repair thereof. That the second break, although similar in nature and cause, was separate and distinct, and entirely independent of the first break.

8. Immediately after each break in the north canal, the defendant initiated the repair thereof, taking all reasonable precautions to limit the damages which might arise therefrom and to expeditiously return the canal to normal operating conditions.

9. The United States, in selecting the course of the canal, had no alternative but to construct it over the type of soil upon which it is located because the area in question is all substantially alike. Thus, the United States had to exercise its discretion as to whether it should construct the canal over the character of soil on which it was constructed or to refrain from constructing it entirely.

10. In determining to line only a portion of the canal, the United States was exercising discretion of the highest character. In its judgment not to line the entire canal the United States determined as a matter of good engineering judgment that such lining was neither requisite nor necessarily desirable and to line a 70 mile canal would result in such an exorbitant cost that the said project would not have been feasible.

11. The breaks in the canal resulted from the formation of earth strata beneath the floor of the canal constituting a latent defect concerning which the United States or its officers and agents had no knowledge prior to the time of the break in the canal and against which they could not guard.

12. The United States was not negligent in the construction, operation and maintenance of the north canal and that at all times that canal was kept in a state of good repair.

13. For a period of approximately 11 years the canal at the point of the breaks had carried a full capacity of water during irrigation seasons and at no time gave evidence of weakness that would probably result in a break or breaks.

14. At all times, in accordance with good practice of operation and maintenance, the United States employed a competent ditch rider who regularly inspected the ditch, including the area where the breaks occurred, and the ditch rider on the day when the first break occurred had inspected the area in question and observed nothing indicating a weakness in the canal which would give any knowledge that a break would take place.

15. The burden of proof is on the plaintiffs to establish a duty on the part of the defendant to protect them against the negligence claimed; the alleged acts of the negligence; that the negligence, if any, was the proximate cause of the damage alleged, and the nature and extent of the damage claimed.

16. There is no duty on the part of the defendant owing to the plaintiffs to protect them from the alleged negligence or from the damages alleged in their claim.

17. There was no privity of contract between the plaintiffs and the defendant as to the delivery of water nor is there any other basis from which a duty owing to the plaintiffs could arise in connection with the construction, operation and maintenance of the north canal.

18. Defendant has in no respect breached its contract of October 14, 1926.

19. Negligence on the part of the defendant was not the proximate cause of the loss or damage which is the basis of plaintiffs' claim.

20. If there was a duty owing by the United States in connection with the operation and maintenance of the north canal, it was to the Owyhee Irrigation District and not to the plaintiffs.

21. The plaintiffs are bound by all the provisions of the contract of October 14, 1926, including in particular Sections 17, 44, and 32 thereof by reason of the execution by them or their predecessors in title of the so-called short form of recordable contract in which are incorporated by reference the terms of the long form of recordable contract entered into between the Owyhee Irrigation District and J. J. Sarazin and his wife dated the 25th day of March, 1927, and by reason of their failure to offer any objections to the proceedings authorizing

the making of such contract of 1926 and its confirmation, and by reason of receiving and using, without objection, water made available under that contract.

22. The irrigation districts having contracts pursuant to which they agreed to pay to the United States all of the costs of constructing, operating and maintaining the Owyhee Reclamation Project, namely, the Gem, Owyhee, Ontario-Nyssa, Payette-Oregon Slope, Crystal, Bench, Slide and Advancement Irrigation Districts should be made third-party defendants in this case pursuant to the motion of the defendant of December 2, 1947.

23. That each and all of the claimed acts of negligence, if any, on the part of the defendant were based upon the exercise or performance or the failure to exercise or perform discretionary functions or duties on the part of a Federal Agency or employees for the Government for which the Government is exempt from damage for any cause.

24. In the operation of the Owyhee Project, including the north canal, the defendant is not an insurer and does not insure against damages caused by failure to deliver water.

25. The 1926 contract executed by the Owyhee Irrigation District and ratified and confirmed by plaintiffs, waived any and all claims for damages against the United States, including those emanating from the failure to deliver water; and the District and these plaintiffs are by such contract obligated to indemnify and hold harmless the

United States from any and all damages claimed to arise from failure to deliver, including the claims of the plaintiffs.

26. The rights, if any, of the plaintiffs to the delivery of water are subject to each plaintiff establishing that he or she did not, as owners, receive water from the project supply for more than 160 acres of irrigable land within the Owyhee Project or any other Federal Reclamation Project established pursuant to the Federal Reclamation Laws.

Disputed Facts

1. Whether the acres of land set forth in plaintiffs' claim were irrigable and entitled to water from the works of the Owyhee Project during the irrigation season of 1946.

2. Whether the plaintiffs were the owners of the lands described herein, and the respective interest that any of the plaintiffs may have in said lands or in the crops grown thereon for the year 1946.

3. Whether there are any persons or person other than the plaintiffs entitled to or who have a right to participate in the proceeds from the sale of the crops allegedly damaged by the failure of the defendant to supply water.

4. Whether the plaintiffs had planted 30 acres of irrigable land with ladino clover; whether those lands were entitled to be irrigated from the water supplied by the defendant to the Owyhee Irrigation District; what was the amount, nature and extent

of the damage to said crop, if any, as a result of the breaks in the canal.

5. Whether the plaintiffs had planted 20 acres of irrigable land with alfalfa hay; whether those lands were entitled to be irrigated from the water supplied by the defendant to the Owyhee Irrigation District; the amount, nature and extent of the damage to said crop, if any, as a result of the breaks in the canal.

6. Whether the plaintiffs had planted 49 acres of irrigable land with beets; whether those lands were entitled to be irrigated from the water supplied by the defendant to the Owyhee Irrigation District; the amount, nature and extent of the damage to said crop, if any, as a result of the breaks in the canal.

7. Whether the breaks in the canal were the proximate cause of the damages claimed.

8. Whether the defendant was in fact negligent as asserted by the plaintiffs in their claimed particulars as follows, to wit:

(a) That there was a defect in the plan of constructing of said canal in that the same was constructed over and with a porous type of soil which permitted water to seep through the bottom and sides of said canal in a manner and to the extent that the stability of the canal was endangered.

(b) That for more than six months, in the maintaining of said canal, water had negligently been allowed to seep through the sides and bottom of

said canal and for such a length of time as to put the defendant on notice and knowledge as to the weakened condition of said canal.

(c) That the defendant negligently allowed and permitted said canal to remain in a dangerous or weakened condition and negligently failed to repair the same.

(d) That the defendant was negligent in the materials used in repairing the first break in the canal, and in not improving and sealing the sides and bottom of said canal in such a manner as to prevent leakage or washing away.

(e) That the defendant was negligent in turning into said canal a large and excessive amount of water after the repair work on the first break.

9. Whether any, each and all of the specified acts of negligence on the part of the defendant, if any, were the proximate cause of the breaks in said canal on July 14, 1946, and July 19, 1946, and if so, which specified act or acts.

10. Whether the canal broke on July 14, 1946, and July 19, 1946, as a result of the latent defects of earth formation and strata underneath the floor of the canal, and whether or not such latent defects were the proximate cause of the breaks in said canal and the failure of the defendant, if any, to deliver water to the plaintiffs as claimed.

11. Whether any, each or all of the specified acts of negligence, as set forth herein, were the proximate cause of the damage as claimed by plaintiffs, and if so, which specified act or acts.

12. Whether during the period July 14, 1946, to July 31, 1946, inclusive, the plaintiffs had any other source of artificial or natural water supply for the irrigation of or supplying adequate moisture to the said lands and the crops growing thereon.

12-A. Is any part of the plaintiffs' claim barred by the statute of limitations and if so what?

13. Whether, when irrigated, the lands are fertile and fruitful and produce abundant crops of all types commonly grown in the vicinity and that irrigation is necessary each year from early in April to late in the fall, and particularly during the hot months of July and August.

14. Whether for a period of approximately five weeks there was an increase in the seepage at the points where the two breaks occurred and whether at a time approximately three weeks prior to the breaks the defendant was notified of that fact.

15. Whether the first break disclosed latent or known defects below the bottom of that portion of the north canal where the second break occurred and whether it would have been negligent under the circumstances, if known to the defendant, to have failed to correct such latent defects.

16. Whether the plaintiffs, in view of the limit provided by the Federal Reclamation Laws and the 1926 contract as to the irrigable area to which water can be delivered, (160 acres owned by one person) are entitled to the delivery of water for all or any of the lands described in their complaint."

Exhibits

Exhibits were marked as pre-trial exhibits and reservations allowed for exhibits as listed below:

Plaintiffs. Description.

- 1—Contract between the United States of America and the Owyhee Irrigation District, dated October 14, 1926, and supplemental contract of March 16, 1936, having application to all irrigation districts in Owyhee Project.
- 2—Contract between the United States of America and Ontario-Nyssa Irrigation District, dated February 5, 1927.
- 3—Contract, J. J. Sarazin and wife with Owyhee Irrigation District, dated March 25, 1927.
- 4—Certificate of Secretary Frank T. Morgan, Owyhee Irrigation District, showing payment of assessment for 1946 on plaintiffs' land.
- 5—Certificate of Thomas Jones, Secretary of Ontario-Nyssa Irrigation District as to payment of assessments on lands not involved in this case.
- 6—Decree of confirmation by Circuit Court, State of Oregon for Malheur County, confirming organization of Owyhee Irrigation District and confirming proceedings for execution of the contract between the United States and Owyhee Irrigation District, dated August 12, 1926.
- 7—Findings of Fact and Conclusions of Law and Decree of the Circuit Court for the State of

Oregon for Malheur County, confirming the proceedings in organization of the Ontario-Nyssa Irrigation District and confirming the proceedings relative to the Contract between such District and the United States.

- 8—Pertains to Civil No. 3871.
- 9—Pertains to Civil No. 3871.
- 10—Pertains to Civil No. 3871.
- 11—Pertains to Civil No. 3871.
- 12—Pertains to Civil No. 3871.
- 13—Deed dated October 18, 1941, between P. C. Patterson and George G. Patterson, his wife, and Sheff White.
- 14—Contract between Sheff White and Owyhee Irrigation District dated December 29, 1941.
- 15—Pertains to Civil No. 3871.
- 16—Receipt. Pertains to Civil No. 3871.
- 17—Photograph.
- 18—Photograph.
- 19—Photograph.
- 20—Photograph.
- 21—
- 22—
- 23—
- 24—

25—

26—

27—Photograph.

28—Photograph.

29—Photograph.

30—Photograph.

31—Reserved for map. (No map.)

32—Pertains to Civil No. 3871.

33—Reserved for aerial map. (No map.)

Defendant's. Description.

34—Photostatic copy of Finding of Feasibility of Secretary of Interior, approved October 12, 1926.

35—Owyhee Irrigation Project map No. 23300A.

36—Photostatic copy of Contract between Gem Irrigation District and the United States of America, dated October 14, 1926.

37—Photostatic copy of Contract between Payette-Oregon Slope Irrigation District and the United States of America, dated October 14, 1926.

38—Photostatic copy of Contract between Crystal Irrigation District and the United States of America, dated November 28, 1931.

39—Photostatic copy of contract between Advancement Irrigation District and the United States of America, dated September 1, 1936.

- 40—Photostatic copy of Contract between Bench Irrigation District and the United States of America, dated October 5, 1931.
- 41—Photostatic copy of Contract between Slide Irrigation District and the United States of America, dated October 14, 1926.
- 42—Photograph, identification Reg. 1-1181.
- 43—Photograph, identification Reg. 1-1186.
- 44—Photograph, identification Reg. 1-1184.
- 45—Photograph, identification Reg. 1-1183.
- 46—Photograph, identification Reg. 1-1185.
- 47—Reserved for photograph of canal showing canal after break. (Out.)
- 48—Reserved for photograph of canal showing canal after break. (Out.)
- 49—Reserved for photograph of canal showing canal after break. (Out.)
- 50—Reserved for photograph of canal showing canal after break. (Out.)
- 51—Reserved for photograph of canal showing canal after break. (Out.)
- 52—Reserved for photograph of canal showing canal after break. (Out.)
- 53—Reserved for model of portion of canal at break.
- 54—Reserved for all documentary proofs relating to crop damages.

Plaintiff's. Description.

55—Reserved for all documentary evidence relating to titles, chattel mortgages, leases, etc., and memorandum of sale of various crops, etc.

56—Pertains to 3871.

Defendant's. Description.

57—Reserved to defendant's contrary proof pertaining to 55.

58—Pertains to 3871.

59—Reserved for Certificate of Secretary of Owyhee Irrigation District, as to number of irrigable acres of plaintiffs' land entitled to water. (Out.)

60—Notice of Availability issued by Secretary of Interior for:

- (a) Owyhee Irrigation District.
- (b) Advancement Irrigation District.
- (c) Bench Irrigation District.
- (d) Crystal Irrigation District.
- (e) Gem Irrigation District.
- (f) Ontario-Nyssa Irrigation District.
- (g) Payette-Oregon Slope Irrigation District.
- (h) Slide Irrigation District.

Plaintiffs'. Description.

61—Certified copy of the application to the State Engineer of the State of Oregon by the United States of America to appropriate waters of the Owyhee River.

- 62—Certified copy of certificate of appropriation issued by the State Engineer of the State of Oregon to the United States of America.
- 63—Contract for the construction of the north canal between the Bureau of Reclamation and J. A. Terteling, dated November 10, 1933, with the right to make certain references to parts of the contract which the parties may deem to be pertinent and material.
- 64—Reserved for the introduction of gauge readings regarding the flow of water in the north canal in the immediate vicinity of the break for the year 1946 prior to the time of the break. (Out.)
- 65—Field notes of witnesses called by either party used for reference.

Defendants'. Description.

- 66—(a) Patrolman's Reports. Report of daily readings of gauge heights for the gauge at Mile Post 36.7 on the North Canal. Reports are made weekly and cover the irrigation seasons for the years 1942, 1943, 1944, 1945 and 1946.
- (b) Graph showing daily gauge. Height readings for the Mile Post 36.7 gauge.
- (c) Geological Survey rating table for the gauge at Mile Post 36.7 (Table dated 2/6/42).
- (d) Graph showing daily discharge in cubic feet per second, years 1942 through 1946.

Plaintiffs'. Description.

- 68—Photograph.

69—Photograph.

70—Photograph.

71—Photograph.

72—Photograph.

73—Photograph.

74—Photograph.

75—Photograph.

76—Photograph.

77—Photograph.

78—Photograph.

79—Photograph.

80—Profile map.

81—Profile map.

82—Profile map.

Defendant objects to plaintiffs' Exhibits numbered 4 and 5 as not being competent on the question of ownership of property.

Defendant objects to competency and materiality of plaintiffs' photographic Exhibit number 27 and to the aerial map reserved number 33 and to map reserved as Exhibit number 31.

Defendant objects to plaintiffs' Exhibit 61 and Exhibit 62 on the grounds that they are irrelevant and immaterial.

Defendant objects to plaintiffs' Exhibits 68 to 79, inclusive, photographs taken year 1948, as being too

remote as they do not disclose condition of canal at time of breaks.

Defendant objects to plaintiffs' Exhibits 80, 81, and 82, profile maps, as they do not show real condition of the canal and are irrelevant and immaterial.

Plaintiffs withdraw from the pre-trial Exhibits, designated numbers 21, 22, 23, 24, 25 and 26.

The plaintiffs object to the introduction of the defendant's Exhibits marked 34, 36, 37, 38, 39, 40 and 41, as shown on the pre-trial order, upon the ground that each of said Exhibits are incompetent, irrelevant and immaterial and not pertaining to prove any issue on trial herein and that the matters therein contained are not binding on these plaintiffs and involves parties who are not now parties to this trial.

Any further identification of Exhibits not hereinbefore objected to are waived and all objections of Exhibits not objected to herein are waived.

Questions of Law

1. Whether this Court has jurisdiction under the Federal Tort Claims Act (28 U.S.C., 921, et seq.) of plaintiffs' claim.

2. Whether this Court has jurisdiction of plaintiffs' claim under the so-called Tucker Act (28 U.S.C., 250 et seq.; 28 U.S.C., 41, subsec. 20).

3. Whether the facts in this case are sufficient to constitute a claim against the defendant under the Federal Tort Claims Act.

3-A. Has the statute of limitations run against any portion or all of plaintiffs' claim and, if so, what portion?

3-B. Whether the defendant is liable under the Federal Tort Claims Act for any of the specific acts of negligence alleged by the plaintiffs which took place prior to January 1, 1945.

4. Whether the facts in this case are sufficient to constitute a claim against the defendant under the so-called Tucker Act (28 U.S.C., 250, et seq.; 28 U.S.C. 41, subsec. 20).

5. Whether there is a legal duty owing to the plaintiffs by the defendant by reason of its contract dated October 14, 1926, with the Owyhee Irrigation District, and the contract between the landowners and the District, and if so, what is the character of that duty.

6. Whether the Contracts impose a duty upon the defendant to the plaintiffs to protect them against their specified acts of negligence by reason of the facts established in this case.

7. Which of the parties, assuming that there is a legal duty on the part of the defendant owing to the plaintiffs to protect them against the specified acts of negligence, has the burden of proof.

8. Whether the acts of negligence which may be established in this case are of such character as to exempt the defendant from liability by reason of the provisions of 28 U.S.C., 943(a).

9. If any of the acts of negligence which may be established in this case against the defendant come within the purview of the exemption set forth in 28 U.S.C. 943(a), which act or acts come within that exemption.

10. Whether the irrigable lands described in plaintiffs' claim, being situated within the boundaries of the Owyhee Irrigation District, were entitled during the irrigation season of 1946 to have water delivered to them for the irrigation of the crops allegedly growing on those lands.

11. All water assessments for the irrigation season of 1946 having been paid, were the plaintiffs entitled to have water delivered to the irrigable lands described herein.

12. Whether the rights of the plaintiffs are derivative from the contract of October 14, 1926, and from the contracts which the landowners entered into with the Irrigation District; and, if so, whether the clause of the contract providing that no liability will accrue against the United States for any damages because of the shortage of water exempts the United States from liability to the plaintiffs assuming that evidence is adduced supporting the claim giving rise to this action, and whether the provisions of those contracts to indemnify the defendant and hold it harmless, exonerate it from liability by reason of the provisions of the contract of October 14, 1926, particularly the provisions of Sections 17, 44 and 32.

13. Whether the defendant is liable under the Federal Tort Claims Act for any of the specified acts of negligence alleged by the plaintiffs which took place prior to January 1, 1945.

14. Whether the payment of the water assessments for the 1946 irrigation season by the plaintiff to the Owyhee Irrigation District created a relationship with the defendant of an implied contract which entitled the plaintiffs to receive water for the irrigation season of 1946.

15. In the construction, operation and maintenance of the Owyhee Project, including the north canal and including the repairs thereof and the regulation of the flow of water therein, was the defendant at all times performing its governmental function or was it acting in a proprietary capacity?

16. Whether the defendant in the operation of the Owyhee Project, including the north canal, is an insurer against damages caused by failure to deliver water.

Additional Statement and Objections

The Court has denied for the present the Motion of the defendant to bring in all the irrigation districts referred to herein as third-party defendants, to which the defendant has made objections. If the Court eventually determines that those irrigation districts should be brought in as third-party defendants, the appropriate pleading will be filed and thereafter a pre-trial conference will be held

at which the irrigation districts will have an opportunity to appear and present their contentions and a supplemental pre-trial order will be entered.

It is agreed that the plaintiffs may tender evidence upon the trial to show the extent of the interest of each party plaintiff named herein in the lands involved and the crop grown thereon, and that defendant may tender evidence to controvert the same.

If the Court desires, it may segregate and try separately the issue of the liability of the defendant under any theory; and if found liable, it may try separately the question of damages, and in that event, if the Court shall so segregate the issues, thereafter a supplemental pre-trial order will be drawn covering questions of damages. However, if the Court does not segregate and try separately the issues involving the question of the defendant's liability and the question of damages, the defendant reserves the right to submit as exhibits adverse party depositions and/or interrogatories as to the amount, nature and extent of plaintiffs' claimed damages under this pre-trial order.

The Court at the pre-trial conference allowed plaintiffs to amend their Complaint to plead in Contract under the provisions of the so-called Tucker Act (28 U.S.C., sec. 41, subsec. 20; 28 U.S.C., 250 et seq.) or under the Federal Tort Claims Act (28 U.S.C., 921 et seq.) or in the alternative. To the foregoing ruling by the Court the defendant objects.

Conclusion

This pre-trial order has been formulated after a conference at which litigants and their respective attorneys have appeared in open Court. There are no other issues of law or of fact except as embodied in this order and this order supersedes the pleadings as to issues of law and fact. This order will control the course of the trial and shall not be amended except by consent of parties and the Court or by the Court to prevent manifest injustices.

Dated and entered in open Court this 8th day of June, 1948.

/s/ JAMES ALGER FEE,

Judge.

GALLAGHER & GALLAGHER,

Counsel for Plaintiffs.

Counsel for Defendant:

/s/ HENRY L. HESS,

United States Attorney,

/s/ WILLIAM H. VEEDER,

Attorney,

Department of Justice.

[Endorsed]: Filed June 8, 1948.

In the District Court of the United States
For the District of Oregon

Civ. Nos. 3669 to 3853, 3861 to 3865 and 3871

IRA R. URE, et al.,

Plaintiffs,

vs.

UNITED STATES OF AMERICA,

Defendant.

SHEFF WHITE, et al.,

Plaintiffs,

vs.

UNITED STATES OF AMERICA,

Defendant.

Civ. No. 3855

FINE SHEEP COMPANY,

Plaintiffs,

vs.

UNITED STATES OF AMERICA,

Defendant.

Civ. No. 3870

IRA R. URE, et al.,

Plaintiffs,

vs.

UNITED STATES OF AMERICA,

Defendant.

OPINION

March 13, 1950

James Alger Fee, Chief Judge:

The present opinion concerns the responsibility of the United States to one hundred ninety-three land-owners, served by the Owyhee Canal, based on two different type claims arising because of the breaking of the canal, which was under governmental control. The first class relates to damages on account of the failure to deliver water because of the break, whereby crops were lost. The second class relates to direct trespass of the water upon lands as a result of the break. These cases were consolidated for the purpose of pretrial conference and of taking evidence as to liability. A representative of the cases depending upon failure to deliver water is that of White's. One of the cases of the Ure's was chosen as illustrative of the causes where damage was claimed by floodings.

After a pretrial conference in this cause, there was entered a pretrial order, from which the agreed facts are drawn for the purpose of this memorandum. The Whites claim to own certain land, which it is agreed is situated within the boundaries of the Owyhee Reclamation Project, and that the irrigable area thereof is arid. The land is also within the Owyhee Irrigation District, a quasi-municipal corporation of the State of Oregon, which entered into a contract with the United States in 1926. By this contract, the District agreed that it would indemnify and hold harmless United States against

any and all costs arising from construction, operation and maintenance of the irrigation system constructed by the defendant to reclaim and serve the irrigated acreage. It is further agreed that on account of drought, inaccuracy in distribution or other causes, there may be shortages in the water supply, and, "while the United States will use all reasonable means to guard against such shortage," the latter and its agents shall have no liability therefor. Sheff White, one of the plaintiffs, entered into a contract with the District, confirming and consenting to the terms of the contract above set out, binding himself, his successors and the irrigable lands to the terms and conditions. The contract was confirmed by decree of a court of competent jurisdiction.

During all of the year 1946, United States was in control of and operating the Owyhee Reclamation Project, including the North canal, which is approximately seventy miles long. A break occurred therein on Sunday, July 14, 1946, at a point about thirty-six miles from the head of the canal. The agents of the government had turned the water into the canal and were controlling the flow of the stream therein. The break was approximately fifty feet wide at its widest point. Water in the canal, which could not be diverted from the canal above and below the break, drained out through the break. Repair work was immediately commenced. On Thursday, July 18, repairs had progressed to a point where the engineer in charge ordered water turned into the canal, which was done. A second

break occurred at approximately 1:30 a.m., July 19, 1946, downstream from the first break.

The Whites had paid all water assessments levied by the District against the irrigable land. Although it is not expressly stipulated, there is no doubt but what the crops depending upon irrigation water were damaged by the lack thereof at the season wherein the breaks occurred.

The Whites have made many contentions as to the failure of the United States to furnish water to mature the crops growing on these lands, but, for the purposes of this opinion, they may be summarized briefly. They contend, as far as crop damage was concerned, that they became parties to the contract between the District and the Government and were entitled to the delivery of the water, to which they had legal title as appurtenant to the reality. It is contended that the United States owed a duty to exercise reasonable care in the construction, operation and maintenance of the canal, and that the breach of this duty in several particulars proximately resulted in the break and the failure to deliver water to the land of the Whites for the period from July 14 to July 31. The amount of the damage was reserved by the Court for trial in the event the issue of liability was determined against the Government.

The Ures, and others who suffered direct damage from the invasion of their lands by the rush of waters from the break, claim that, as a result of the waters' escaping from the canal, their lands

were flooded and a certain portion was washed away and other portions rendered unusable by deposit of sand, rocks and debris, and that the resulting trough separates one portion of the land from the other. Injuries to structures on the land are also claimed. Although other forms of the basic contention are presented, there is one statement of claim in the pretrial order which is entirely comprehensive. It is said that "because the defendant retained exclusive control and management of the project and all its facilities, it was the duty of the defendant to protect the plaintiffs from the flooding." The land where the break occurred was vested in the United States. The fact that the lower side of the ditch was without lateral support, because the terrain sloped off to a marked degree, is set up. It is claimed that the ditch had a capacity of 451 second feet of water, and that there were 450 second feet being carried at the time of the first break. It is also indicated that this column of water was flowing for a distance of 36.15 miles down to and through the break.

The United States contends, first, that the landowners were not parties to the contract between the Irrigation District and the Government, and, as a result, no duty was owed to them. Disposition of this may be made shortly. Sheff White and Ure accepted the burdens of the contract in accordance with a direct provision therein. According to a proviso thereof, the land could not have obtained water unless the District assessments were paid and unless the contract between the Government and

the District were accepted by the landowners. It might thus be indicated that the action was on a contractual liability and therefore could be brought under the Tucker Act. Another phase of the contention of the Government is that, since there was no contractual liability to the Whites, there was no duty owed to them under the contract, and therefore a tort claim for the damage was not maintainable. The argument just above stated also applies to this contention. But neither of these two points need be decided. It makes no difference whether the Whites could sue on the contract or not, either in tort or contract. The Tort Claims Act provides that there shall be a remedy "for injury or loss of property * * * caused by the negligent or wrongful act or omission of any employee of the Government * * * under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred."¹ Under the law of Oregon, by assuming the operation and maintenance of the canal, the Government became a common carrier of water. It thereby incurred the duty to use reasonable care to effect delivery to the Whites of the amount of water called for by the water right which was a real appurtenance to their land. And, since this is all that the plaintiff asks of the Government, whether on the theory of contract, tort based on contract or as a result of the duty established by the laws of the state upon one assuming

¹ 28 U.S.C.A. § 1346(2) (b).

to act as a common carrier of water to lands to which the water right is appurtenant, the same basis for recovery is laid. The Government attorneys contend that, in the construction, maintenance and operation of the canal, there was exercised "a strictly discretionary governmental function of the highest character," and therefore that the Government is specifically exempt under the provisions of the Federal Tort Claims Act, 28 U.S.C.A. § 2680 (a). The Court is of opinion that this argument is entirely unsound. The Government, in order to collect back the money which it had spent upon the construction of the work and the canal and the operation thereof through an easement which it owned, assumed the management and control of the column of water and the duty to deliver. If it were necessary to so decide, it might be held that this was in a proprietary capacity, but, whether or not that be true, the words of exemption in the Act do not apply to such duties as these. It is also contended that, in selecting the course of the canal, the Government agents had no alternative but to construct it over the type of soil upon which it is located, and had to exercise its discretion as to whether it should construct the canal over the character of soil on which it was constructed or to refrain from constructing it entirely.

The gist of the charge of negligence, however, is that it maintained and operated the canal at a full head knowing the character of soil upon which it was built without lining it with concrete, impervious soil or constructing an impervious core on the

lower bank, which was required originally by the plans.

The question of whether ordinary care was exercised by the officers, agents and employees of the Government in the construction, operation and maintenance of the irrigation works, in view of the duty to deliver water to the Whites, comes up for decision. The plaintiffs' charges of negligence are now examined.

There was the theory of the plaintiffs that there was some sort of a reservoir in the soft materials of the hill, which backed up the water and held it until the time when it had permeated the whole structure. It is contended this is a serious defect in construction. The Court is inclined to believe from the evidence that the experts called by the Government are more nearly exact and that the explanation is that the structure was below the bottom of the canal. However that may be, it is unquestionable that the defect could have been avoided by lining the canal with concrete at the particular point, building an inner core or a like structure upon the side and bottom of the canal, and finally by digging out the soft structure and permitting the canal to be lined with impervious material. Since the defect in the structure was not discovered at the time of construction, no such measures were taken. However, there is no doubt from the testimony which is now in the record that the defect could have been discovered, had proper tests been taken at the time of construction or afterwards. Competent engineers, however, must admit that the

mere fact that these structures, which would not hold water, were buried four to six feet beneath the canal and over a space of two hundred to three hundred feet along the center line could have been discovered with proper test at the time of construction.

However, plaintiffs here had the burden of proof. A careful reexamination of the evidence shows that the cause of the break was never established and remains conjectural. Another charge is that of failure to provide competent inspection. In this connection, there is no doubt that inspection was provided, but the character of the inspection must be examined.

In the light of the standard of ordinary care, the Court will examine these charges of negligence. If this break had occurred within a few months after the construction of the canal, ordinary care would have required the discovery of the pervious structure, upon the latent existence of which the Government now bases its defense. The essential negligence would have been the release of a full head of water before inspection to insure stability in the canal. If a simple device of building a core would have prevented the disaster, this necessity seems too plain for argument. Likewise, if a break would not have occurred had the canal been lined at this point with concrete, as it is in some other sections, efficient inspection would have disclosed the necessity. As for the idea that the defect was hidden does not comport with the respect which the Court has for the engineering profession to hold that

such a situation, now hypothetically assumed, could not have been discovered and proper precautions taken against a break by thorough inspection during construction.

The Court was not convinced that the attempted explanation of the government experts was valid. It was unquestionably proved that there were structures near the canal at the points which were previous to water, and that these were saturated at the time of the breaks. But the evidence did not disclose why or how the break happened eleven years after construction. Since the burden of proof lay on plaintiffs to establish cause and damage as a proximate result, no liability can be found in this state of the record. In view of the nature of the duty to deliver water, *res ipsa loquitur* does not apply.

A great quantity of water has flown over the dam and through the Owyhee Canal since construction. The Court is of opinion that the canal itself built up a protective covering over these structures, which was only gradually permeated by water. We hold that eleven years of use of this canal would lead persons charged with only the duty of ordinary care to believe that the construction was proper and that the canal would hold a full head of water over irrigation season in the absence of other circumstances tending to destroy that belief. After all, the charge can not be negligence in construction alone, but must be coupled with a charge of negligence of operation under all the circumstances, with the duty imposed as to the irrigators below.

The Court believes the operation of the canal at full head at a time when everyone was crying for water was in the exercise of ordinary care. Now we turn to other circumstances from which warning of the impending break might have been obtained.

This question is whether warning should have been taken from the condition of the ground about the canal and below and about the place where the break occurred. Also, there is a question whether the springs or outlets below were of such nature as to indicate to reasonably prudent persons using ordinary care that the canal was about to break. A great deal of testimony was taken concerning the condition of the fields and ditches close to the embankment of the canal, near the point where the break subsequently occurred. This latter testimony, in the opinion of the Court, was quite weak. The Court was not convinced that any observed conditions referred to did not come from surface water. Nor is great weight to be given testimony concerning the miring of a tractor and a wet condition of soil in the field immediately below the place where the break subsequently happened. The water in the lateral of the farm within a few feet from the toe of the canal bank was, in our opinion, casual. It was either surface water or rain. As a matter of fact, at the time that this water showed up, the canal had no water in it, since the stream had not yet been required for irrigation. There is also some testimony as to heavy growth of willows and other brush near this lateral canal. The brush is

much more likely to have received moisture from the lateral itself. Experience in the irrigation country does not indicate that such circumstances would be taken as indications that a break was going to occur in the main canal.

There is considerable testimony about the appearance of flowing springs below the wall of the canal. The evidence is that from certain of these springs there was a continuous flow of considerable strength. These emanations of water were at a great distance from the canal. Besides this, the statement that the canal must have some outflows might well be true. The opinion of the experts seems to accord the experience of the irrigation country that the suspiration of a canal is apt to denote a healthy condition. Certainly, these springs were well known to the whole countryside, and, if anyone had believed that they were a source of peril, the matter would have been taken up in protest by the landowners on whose property these appeared and other irrigators who depended on the canal for their crops.

As a matter of fact, we have very strong indication here that there were no circumstances such as would have warned a person in the exercise of ordinary care. The farmers themselves, in an irrigation country, are concerned with the maintenance of the main canal, and, if there were any such circumstances which would call attention to the ordinary man the fact that the canal was apt to break, they unquestionably would have been reported to the

Government and we would have had testimony that such warnings were given. There is no such testimony in the record. There was nothing then in any of these conditions which would require a person, in the exercise of ordinary care, to anticipate a break because of the circumstances mentioned. The Court holds that the absence of ordinary care in this respect has not been demonstrated by this showing.

The next question is as to the competency of the inspection. It is not contended that there was no inspection. This, of course, would have been contrary to fact. There was positive evidence that inspection was carried on regularly twice a day, and that within one-half hour of the break the inspector passed over the road on the bank of the canal and saw nothing which would lead him to believe that a break was imminent. This is shown to have been the usual custom of the Government in regard to inspection. It was unquestionably adequate to fulfill the duty of exercise of ordinary care. It might be contended that the inspector employed was not competent, but there has been no attack upon that basis. The only question involved is whether it was sufficient to have a person ordinarily skilled in irrigation problems to make such inspection or whether it was necessary to have an inspection by a competent engineer who would make appropriate tests. In view of the nature of the duties, however, the Court determines that the inspection made was sufficient. If it had been that the inspector had noticed and suspicious circumstances and dis-

regarded them, thereupon an entirely different problem would have been raised, but in this instance there is no such showing. Therefore, as far as the inspection is concerned, the Court holds that it met the duty incumbent upon the Government to use ordinary care in attempting to maintain the canal and control the column of water.

As to the plaintiffs who complain of loss of crops, therefore, the Court concludes that, as to the first break, there is no responsibility on the Government.

It is then said that the second break was caused by negligence in failing to discover that the structure, which permitted the first break, extended a considerable distance down the canal, as above noted, and that it would not hold water until all of this structure had been scraped out of the bottom and different earth built in. And secondly, that a full head of water was turned in, in the first instance, and that the break resulted from that, whereas, if it had been allowed to build up gradually, the catastrophe would not have happened. There is much less to support this charge than there is to support the charges as to the first break. The record shows that those engaged in fixing the first break took prompt and efficient methods to rebuild the canal at the point where the break had taken place. At that time, no one knew of the weaknesses of the structure or what caused the difficulty. It was only after the second break that the phenomenon, which unquestionably caused both breaks, was discovered. It must be remembered that the action of those repairing the break was action in emer-

gency. The farmers were complaining of the lack of water and of the fact that the first break had occurred. It was imperative to get the water to the irrigators as soon as possible, in order that the crops should not be destroyed. This review is sufficient to clear away both the failure to discover the character of material which caused the first break and the use of a full head of water.

The causes which depend upon failure to deliver water must therefore be dismissed.

The whole aspect of the problem changes when the cases of direct damage by flooding are considered. Here the United States built and controlled a canal capable of carrying a volume of water far beyond the normal capacities of the local streams, under tremendous pressure, by virtue of the planned fall of the ditch. This construction further carried water high above the natural stream beds along the rimrock of the dusty hills. It is shown how the flow was carried by soil structures inept for such burden in this particular place. The United States, for its own purposes, retained complete direction and control of this artificial current. By its agents, the flow was wilfully directed through these structures, and the speed and volume of the column of water was built up, modulated or cut off completely. The parcels of realty of which Ure and others were seized geographically are lower and in positions exposed to the devastating rush of water if a break were to occur. These elements were obvious and the risk deliberately accepted by construction and

especially by operation. The duty to protect rose with the danger.

It seems reasonable, under the circumstances, to impose a much higher duty upon the carrier of water for hire for injury to tenements endangered by the element so devastating when unchained from an elevated position. Methods of imposition of consequences for violations of the duty of governing such an elemental force are various.

There are several methods of approach, both technically and realistically, to the problem of imposition of liability in regard to the casting of a stream of water from higher land upon land of another at a lower level. The first is the absolute liability imposed for such where one controls a dangerous force which escapes and does injury upon nearby lands. The second is the liability where one voluntarily sets in motion a physical body which actually invades or, as the old books say, commits a trespass upon lands of another. The third is the rule that one dealing with a potentially dangerous instrumentality is bound to use the highest degree of care.

The famous decision of *Rylands V. Fletcher*² imposed absolute liability upon one who introduced water on his own land, where the element escaped onto the land of his neighbor. This opinion has caused extended controversy in this country.³ The

²L. R. 1 Ex. Ch. 265, affirmed; *Fletcher vs. Rylands* (1868), L. R. 3, H. L. 330.

³Bohlen, *Studies in the Law of Torts* (1926), p. 344; Pound, *An Introduction to the Philosophy of Law* (1922), p. 183.

weight of authority is against its application in most jurisdictions of this country.⁴ This is explained on the ground of rejection of an anachronistic doctrine inapplicable to present conditions.⁵ It is doubtful that the decisions can be so explained.⁶ The American Law Institute has adopted a caveat.⁷ A great many jurisdictions still apply this doctrine, and there are some decisions squarely in point under the facts here.⁸ There is a great deal of confusion in

⁴Note, 169 A. L. R. 517.

⁵Bohlen, *Studies in the Law of Torts* (1926), p. 352.

⁶Pound, *Interpretations of Legal History* (1923), p. 106.

⁷See note, *Restatement of Torts*, Ch. 21, § 520.

⁸*Bridgeman-Russell Company vs. City of Duluth*, 158 Minnesota 509, 511: "The trend of modern legislation is to relieve the individual from the mischance of business or industry without regard to its being caused by negligence. Our safety appliance acts and workmen's compensation acts are examples. And even in states where *Rylands vs. Fletcher* has been rejected, trespass may be maintained to recover damages for similar invasions of property from other substances than water, and, of course, without proof of negligence. *Hay vs. Cohoes*, 2 N. Y. 159, 51 Am. Dec. 279; *Wheeler vs. Norton*, 92 App. Div. 368, 86 N. Y. Supp. 1095; *Mairs vs. Manhattan*, 89 N. Y. 498; *Sullivan vs. Dunham*, 161 N. Y. 290, 55 N. E. 923, 47 L. R. A. 715, 76 Am. St. Rep. 274 The complaint in the case at bar charges trespass also, but, from the conclusion already reached that the rule of *Rylands vs. Fletcher* should not be disturbed, it is not necessary to place an affirmance of the order upon the ground that a good cause of action for trespass is pleaded."

the American authorities. The supposed doctrine is repudiated or upheld in widely different situations.⁹ It is debated in cases involving waters percolating because of a dam¹⁰ or an irrigation ditch,¹¹ slight overflows from a canal,¹² flooding of land by backing of water,¹³ release of water in minor quantities through waste ditch¹⁴ and other situations.¹⁵ All these must be distinguished from the violent breach of a reservoir by this elemental force stored by the act of a party. Where one is managing a stream of water and loses control, whereby the element rages over the land of another, the cases above mentioned have no applicability. This distinction has been little noted in the opinions.

⁹Jacoby vs. Town of The City of Gillette, 62 Wyoming 487, 169 A. L. R. 502, and note, 169 A. L. R. 517; Healy vs. Citizens' Gas & Electric Company, 199 Iowa 82, 38 A. L. R. 1226, and note, 38 A. L. R. 1244.

¹⁰Healey vs. Citizens' Gas & Electric Company, 199 Iowa 82.

¹¹North Sterling Irr. Dist. vs. Dickman, 59 Colorado 169.

¹²Jacoby vs. Town of The City of Gillette, 62 Wyoming 487.

¹³Wilson vs. City of New Bedford, 108 Massachusetts 261 (condemnation).

¹⁴Parker vs. Larsen, 86 California 236.

¹⁵Cahill vs. Eastman, 18 Minnesota 324; Texas & Pacific Railway Company vs. O'Mahoney, 24 Texas Civ. App. 631; note, 15 L. R. A. (N. S.) 541.

Closely allied to this doctrine is the liability imposed where one, either personally or by agency of some force which he voluntarily sets in motion, trespasses upon the land of another. At common law, with certain minor exceptions not important here, any interference with possession is an act which will entitle the injured party to bring an action in tort. The fact that the act is done accidentally or in good faith or under justifiable error is no defense.¹⁶

The most striking illustration of this doctrine in modern law is found in cases where a trespass is committed on land by virtue of an invasion thereof by falling rocks, earth or other substances occasioned by the voluntary setting off of a blast of dynamite or other explosive.¹⁷ Here the rule of absolute liability is applied because the defendant voluntarily unleashed a force which, contrary to his intention, invaded the lands of another. In these instances, the overwhelming weight of authority¹⁸ is that there is no defense even though the most extreme precautions were used. If the substances had been stored by the owner of adjoining land and had exploded without the owner's intention or knowledge, then the doctrine of the *Rylands* case would apply. The analogy between the blasting

¹⁶Holdsworth viii, 465, also 466-7, iii, 377-8-382, xii, 523-4.

¹⁷Sullivan, *Admr.*, vs. Dunham, 1617 New York 290.

¹⁸Note, 35 A. L. R. 1244.

cases and the stored water cases is indicated in a very interesting opinion of the Court of Appeals of the Second Circuit.¹⁹ The Court there say:

“While the rule laid down by Blackburn, J., in *Rylands vs. Fletcher*, * * * has not been followed in America to the full extent of all its implications, and, at the outset its authority was impaired by *Brown vs. Collins*, 53 N. H. 442, 16 Am. Rep. 372, *Marshall vs. Welwood*, 38 N. J. Law, 339, 20 Am. Rep. 394, and *Losee vs. Buchanan*, 51 N. Y. 476, 10 Am. Rep. 623, yet in the so-called ‘blasting’ cases an absolute liability, without regard to fault, has uniformly been imposed by the American courts wherever there has been an actual invasion of property by rocks or debris.”

The blasting cases have one element which is not present in the stored water cases, but is present in the instant case. When one voluntarily and deliberately does an act upon his own land which results in a physical trespass upon lands in other ownership, the liability is absolute. In the stored water cases, a condition has been created, the consequences of which may be injury to other land. But in the active release and management of a column of water flowing at a fast rate and in great volume, as in setting off a blast, the person who initiates and carries on the activity is a participant in whatever

¹⁹*Exner vs. Sherman Power Construction Co.*, 2 Cir., 54 F. 2d 510, 513.

results. If the result is a trespass on lands of another, the liability is absolute.

This is not an isolated instance of the doctrine that, where one voluntarily does an act which results in trespass upon land of another, he is absolutely liable. There are opinions which hold that water cast upon another's land, as a result of some act voluntarily done by another, constitutes a trespass,²⁰ whether intentional or not,²¹ and this rule is applicable to acts done by governmental bodies.²²

Due to changing fashions of pleading, the ground of trespass is rarely chosen alone at the present time. The pleader usually thinks that he is safer to place the matter upon a ground of negligence. The Courts, however, in applying the doctrines of negligence, recognize the difference between an inherently dangerous situation and one that will result in a tres-

²⁰*Cartwright vs. Southern Pacific Co.*, D. C. Ore., 206 Fed. 234, 235; see *Fortier vs. H. P. Hood & Sons, Inc.*, 307 Massachusetts 292; *Ryder vs. Town of Lexington*, 303 Massachusetts 281; *Dryden vs. Peru Bottom Drainage Dist.*, 99 Nebraska 837; *City of Jackson vs. Wilson*, 146 Georgia 250. The Oregon Supreme Court adopts the trespass rule in regard to water cast on another's land. *Laurance vs. Tucker*, 160 Oregon 474; *Boulevard Drainage System vs. Gordon*, 91 Oregon 240.

²¹*Hueston vs. Mississippi & R. R. Boom Co.*, 76 Minnesota 251.

²²*Dryden vs. Peru Bottom Drainage Dist.*, 99 Nebraska 837; *Kiefer vs. County of Ramsey*, 140 Minnesota 143; But see *Westerson vs. State*, 207 Minnesota 412.

pass, as differentiated from the ordinary course of events which requires only ordinary care. There are no degrees of negligence, but there are degrees of care. Where a situation has potential elements of extreme hazard, the Courts require a high degree of care and sometimes what they term the "highest degree of care," which does not render the party under such a duty an insurer, but requires him to have in contemplation the perilous potential results of his acts. A procedural corollary of this rule is that the person who is in the exclusive management and control of such a dangerous instrumentality is liable on mere proof of damage occurring as a result of the operation thereof, unless perchance he can establish the injury was caused by Act of God, by the act of a third person or by act of the plaintiff himself. This technical device for fixing liability is commonly called *res ipsa loquitur*. The operation of the rule and its corollary obviously has the same effect as the application of the rule of absolute liability. The dress is more modern, but the body is the same.

The doctrine of *res ipsa loquitur*, in conjunction with a higher degree of care, has been applied in the case of falling objects, handling of electricity,²³ occurrences as a result of defects in or mishandling of machinery, common carriers of passengers,²⁴ fires

²³Boyd vs. Portland Electric Co., 41 Oregon 336.

²⁴Budd vs. United Carriage Co., 25 Oregon 314.

and explosions and particularly from escaping water.²⁵

This critique of theories is of no value except to clear the ground. Congress, by the pertinent act, has consented that the sovereign be liable only where an individual would be under the law of the particular state under the particular circumstances. There is no direct decision of the Supreme Court of Oregon, which establishes liability upon a private citizen under the exact fact. That tribunal has never directly dealt with a violent break in the large irrigation canal whereby the water did damage to lands in a lower position. But the opinions of that Court are not the entire orb of the law. The apothegm of the common law was that the law existed covering every possible concatenation of events, and that the applicable rule could be discovered by research and then declared. The ultra-modern stop-gap, which replaces this barrier of antiquity, is pragmatic. Present day federal courts are bound by necessity to speculate upon what the judges of the particular state would do if confronted with the exact facts then presented for decision.

Article XVIII, provision 7, of the Constitution of the State of Oregon and the Act of June 27, 1844, together constitute a declaration that the common law of England shall constitute a part of the law of Oregon, unless the common law doctrines were

²⁵Kahn vs. Triest-Rosenberg Cap Company, 139 California 340.

modified by the enactment of pertinent statutes.²⁶ The legislature of the State of Oregon has enacted a statute which reads as follows:

“Every corporation constructing a ditch or canal, flume or reservoir, under the provisions of this act shall be liable for all damages done to the persons or property of others, arising from leakage or overflow of water therefrom growing out of want of strength in the banks or walls, or negligence or want of care in the management of said ditch or canal, flume or reservoir; provided, that damage resulting from extraordinary and unforeseen action of the elements, or attributable in whole or in part to the wrongful interference of another with said ditch or canal, flume, or reservoir, which may not be known to said corporation for such length of time as would enable it by the exercise of reasonable efforts to remedy the same, shall not be recovered against said corporation.” Laws of Oregon, 1891, page 57, § 16, 116 O. C. L. A. § 408.

“Every corporation constructing a ditch or canal or flume under the provisions of this act shall carefully keep and maintain the embankments and walls thereof, and of any reservoir constructed to be used in conjunction therewith, so as to prevent the water from wasting and from flooding or damaging the premises of others; and it shall not divert at any time any water for which it has not actual use or de-

²⁶Lytle vs. Hulen, 128 Oregon 483.

mand.” Laws of Oregon, 1891, page 58, § 18, 116 O. C. L. A. § 409.

It is contended that these paragraphs bind the United States as a “corporation constructing a * * * canal * * * under the provisions of this act.” Although other courts have adopted far-reaching constructions in order to accomplish what were believed to be desired ends, the reasoning thereof is not persuasive.²⁷ The United States was not within the scope of the intention of the legislature. However, this enactment contains a clear recognition of the common law principles relating to responsibility for the maintenance of a canal or ditch used by a carrier of water. The common law principles were therefore not modified by statute but exists today for the governments not only of the corporations organized under that Act but also for all other purposes in a like situation.

The rule relating to private parties in the State of Oregon is the pole star here. A review of the various theories of liability, as noticed by the Supreme Court of Oregon, will therefore be helpful. That tribunal has from an early period of its history given definite approval to the doctrine of the Rylands case in a series of decisions. So emphatic has such approval been that Oregon is usually noted in the texts, law review articles and compilations as one of the states accepting that doctrine. It is to

²⁷Hulbert vs. Twin Falls County, 327 U. S. 103, reversing Twin Falls County vs. Hulbert, 66 Idaho 128, which held that a sovereign state was not bound by indefinite language in a federal controlled state.

be noted that there is probably no opinion in which that court squarely applied the principle. In *Esson vs. Wattier*, 25 Oregon 7, the court refused an injunction against the construction of the dam, which it was claimed would cause water to seep upon the premises of plaintiff. Such an injury the court held would be within the rationale of the *Rylands* case, which is cited and quoted. In *Mallett vs. Taylor*, 78 Oregon 208, which was also an injunction case against percolation and minor overflow from an irrigation ditch, the injunction was granted. The court there cited the *Esson* case and cited and quoted the *Rylands* case. Mr. Justice McBride, speaking for the court, quoted from the laws of Hammurabi as follows:

“ ‘If a man neglect to strengthen his dyke and do not strengthen it, and a break be made in his dyke and the water carry away the farm land, the man in whose dyke the break has been made shall restore the grain which he has damaged. If he be not able to restore the grain, they shall sell him and his goods and the farmers whose gain the water has carried away shall share in the results of the sale’: Harper’s Code of Hammurabi, §§ 53, 54.”

He also comments:

“If we eliminate the severe ‘proceedings supplemental to execution,’ the law is practically the same today as it was in the year 2250 B. C.”

The court, however, found in this case that there was proof of negligence and therefore granted an injunction. In *Patterson vs. Horsefly Irrigation*

District, 157 Oregon 1, the court held that instructions in a seepage case, which the court interpreted as making an irrigation district "and all its directors insurers against damage of any and every nature resulting from construction, operation or maintenance" of the system without regard to negligence, were erroneous.²⁸ This case, of course, cannot be assumed to set aside the approval given to the Rylands case in previous opinions. Mr. Justice Bailey, who wrote this opinion, also wrote the opinion in the case of Suko vs. Northwestern Ice & Cold Storage Co., 166 Oregon 557, wherein damage was claimed on account of the breaking of an elevated tank used for storing water by a lessee, whereby adjoining premises were invaded by its collapse, and personal injuries resulted. There the court cites *Esson vs. Wattier*, *Mallett vs. Taylor*, and *Rylands vs. Fletcher*. Although that case is finally also decided upon principles of the highest degree of care and the application of *res ipsa loquitur*.

The doctrine which imposes strict liability in case of trespass has been adopted and followed in the State of Oregon. Where defendant exploded a large blast of powder, throwing debris all over the residence of the plaintiff, it was indicated that there was liability because the plaintiff was frightened

²⁸Hon. Arthur Hay, now an Associate Justice of the Oregon Supreme Court, was the trial judge. The instructions laid down the correct rule in accordance with previous Oregon cases, but were somewhat ambiguous.

and fanted as a result thereof. *Salmi vs. Columbia & N. R. R. Co.*, 75 Oregon 200. It has also been held that, where there was a flood of a stream, a corporation maintaining a dam could not suddenly release large quantities of water in addition to the flood water from its dam and, if property lower down on the stream were thus inundated, the corporation would be liable. *Crawford vs. Cobbs & Mitchell Co.*, 121 Oregon 628. It will thus be seen that the Oregon court recognizes the forms of liability which follow from the adoption of a common law in the Constitution of the State.

In any event, the decisions of the Supreme Court of Oregon, with regard to water, have generally dealt with percolation, infiltration or minor overlapping of the canal bank. As noted above, there has been no case where recovery has been sought for a major breach in the bank of a large canal. As a result of this and the tendency upon the part of lawyers modernly to use negligence as the basis for liability in all cases, this doctrine has usually been made the basis for recovery. In *Emison vs. Owyhee Ditch Co.*, 37 Oregon 577, it was held that it was improper to instruct that, if plaintiff cast water on her own land, that was contributory negligence to the act of the defendant, whereby water from defendant's ditch overflowed her premises. It is obvious that the action should have been for trespass, then the problem would not have arisen.

In *Taylor vs. Farmers Irrigation Co.*, 82 Oregon 701, there was complaint for injunction to seepage from an irrigation canal. The trial court held that

the "ditch or canal was properly constructed and had been kept in good repair, and that the water flowing therein did not seep or escape on plaintiff's premises." The evidence showed none, and the case might have been decided on this basis. However, the court holds negligence must have been shown. In a series of percolation or minor overlapping cases, the court has followed that principle.²⁹ In the case which is most like the facts in the case at bar, as noted above,³⁰ the Oregon Supreme Court applied a negligence rule of a very drastic character. There, as noted above, an elevated water tank on premises in exclusive possession and control of a lessee, burst and injured plaintiff in a house on adjoining property. 3 Kinney on Irrigation and Water Rights, 2d Ed., § 1669, page 3069, was quoted as follows:

"Water, at times, is a most dangerous element even flowing in its natural condition, without the influence of man; and, when formally restrained by the works of man, it suddenly breaks through its barriers and tears through the lands below to the great destruction of life and property, it becomes even more dangerous. Therefore, in a previous section of this work, we stated to the effect that it is the duty of all irrigation or water companies, especially in the

²⁹Mallet vs. Taylor, 78 Oregon 208; Patterson vs. Horsefly Irrigation District, 157 Oregon 1; Kaylor vs. Recla, 160 Oregon 254.

³⁰Suko vs. Northwestern Ice Co., 166 Oregon 557, *supra*.

construction of dams and reservoirs for the storage or the holding back of great quantities of water, to so construct them that they will be of such a strength as to withstand all pressure of water on both ordinary and extraordinary occasions, so far as skilled human foresight can determine, and with that reasonable degree of care as it commensurate with the nature and magnitude of the undertaking, in order to protect the lives and property of those below.”

Rylands vs. Fletcher, *supra*, and the Oregon decisions following the doctrine are cited. The duty of one bringing water upon premises under his exclusive control, say the court, and storing it in an elevated position, was proportionate to the injury which might result if it escaped. The doctrine of *res ipsa loquitur* was applicable, the court decided, because negligence was proved by the bursting of the tank. Since a high degree of danger calls for a very high degree of care, inspection by untrained persons was no defense, but that the examination by a highly trained tank expert might be required.

This Court holds that the Oregon Supreme Court, if faced with the exact facts here, would apply the rule of absolute liability.

Since the pretrial order is sufficiently broad in the questions propounded to cover any and all of these theories of liability mentioned in the opinion, we need not determine whether application is made of the absolute responsibility of the manager of an elemental force or because of a trespass *quare clausum fregit* or because of the theory of an action

on the case for negligence, reinforced by the necessity of explaining how structures erected by defendant and under its control happened to break when subjected only to normal tensions and strains, which these were built to withstand.

The evidence would clearly bring this case in the purview of the Rylands case. Here there was a stream of water—36 miles long—flowing 450 second feet of water in an earthen canal through a structure which was incapable of holding the force thereof. Defendant not only brought the water into an elevated position above the lands of plaintiff, but continued to have it flow there, although no sufficient guard was placed to prevent the water from flowing onto the lands of plaintiff. If then this doctrine, so often quoted with approval by the Supreme Court of Oregon, were applied, plaintiff should recover.

The defendant voluntarily, for the purpose of reimbursing itself for outlay, assumed the control of this elemental force, which was a stream 36 miles long, flowing rapidly and carrying 450 second feet of water. The water invaded the lands of plaintiff and did damage as a consequence of the voluntary act of defendant in turning the water into the canal above. This is a trespass for which liability follows at common law and under the Oregon decisions.

The defendant was handling a highly dangerous instrumentality in a position where the lands of plaintiffs were peculiarly exposed to peril, and was bound to exercise a degree of care proportionate to the injuries likely to result to others if the ditch did not hold the stream. When plaintiffs proved the

collapse of the wall of the canal and the injuries suffered by him, he made out a *prima facie* case of negligence. "A very high degree of danger calls for a very high degree of care, which, however, amounts to no more than ordinary care in such a case."³¹ The defendant, knowing the structures over which this canal was built at this point, was bound to make detailed engineering inspections from time to time while the canal was carrying a heavy load of water. There was no proper care taken, and the liability would be found by the Oregon courts in a case between private citizens.

Even though one may receive water which gives life to his land through the same ditch which is the origin of his disaster, it cannot be conceived why he should bear the full onus thereof while his fellow landowners, whose prosperity is based upon the same operation, and the carrier who transported the water for hire should go scot free. To make this concrete, there is no reason why Fine Sheep Company or Ure should assume the entire burden of damage to his property because of the escape of this raging stream of water. The stream was introduced to aid in the building of the prosperity of the community and in the reclamation of the desert, but there is no circumstance which appeals to this court which dictates that a private individual bear the loss instead of the person or corporation who volunteered for consideration to carry water to the whole

³¹*Suko vs. Northwestern Ice & Cold Storage Co.*, *supra*, page 571.

project. If a corporation were so carrying the water, it would be liable under the statute, which simply crystalizes the common law. A private person would be held upon the common law doctrine of trespass and upon the public policy which underlies the statute and the decisions of the Oregon Supreme Court. Under these circumstances, there is no reason why the United States should not be liable under the enactment subjecting the Government to tort liability.

Since this determination of what the law of Oregon is has been made the only defense of the Government, this will be dealt with. The exclusionary clauses of the Act do not cover this case. This is not a discretionary function. The matter of planning and construction of an irrigation canal can be the subject of failure to exercise a higher degree of care upon the part of the servants of the Government, as well as the servants of a private corporation. The contractual liability of the Irrigation District to the United States is not decided at this time.

There is one suggestion made upon argument which must be rejected with scorn. It is said that, if the Government is held to responsibility for breaks in the canals and dams which it has constructed, it will effectually dampen the ardor of the bureaus for constructing other works. This suggestion is amoral at least.

The determination of the Court is that the Government is liable in the flooding cases. These cases

will therefore be set for trial in order to fix the damage as to each tract involved.

Original Endorsed, Filed May 11, 1950.

Corrections Filed November 6, 1950.

In the District Court of the United States
for the District of Oregon

Civil No. 3669

One of Consolidated Cases Civil Nos. 3669 to 3853,
Inclusive, and 3861 to 3865, Inclusive, and 3871.

SHEFF WHITE, ORLAND WHITE and JOE
M. WHITE,

Plaintiffs,

vs.

UNITED STATES OF AMERICA,

Defendant.

FINDINGS OF FACT AND CONCLUSIONS
OF LAW

By an order dated June 8, 1948, with the consent of the attorneys of record, and in accordance with the Federal Rules of Civil Procedure, Rule No. 42, this Court consolidated for trial Civil Nos. 3669 to 3853 inclusive, 3861 to 3865 inclusive, and Civil No. 3871. Pursuant to that order there were fully tried the common questions of law and fact respecting the liability of the United States of America to

the plaintiff(s) in those actions for damages arising from the allegedly negligent failure of the United States to supply water for purposes of irrigation. The case above captioned is one of those consolidated actions. Upon the testimony and evidence adduced at that trial the Court makes the following findings of fact and conclusions of law.

Findings of Fact

1. The lands involved in these cases are arid in character and are situated within the boundaries of the Owyhee Reclamation Project constructed by the defendant pursuant to the Federal Reclamation Laws, being the Act of June 17, 1902 (32 Stat. 388) as supplemented and amended.

2. All of the irrigable lands involved in this case are situated within the boundaries of one or the other of the irrigation districts referred to in paragraph 8 of these findings, quasi-municipal corporations, organized and existing pursuant to the laws of the State of Oregon.

3. The defendant and irrigation districts referred to in paragraph 8 of these findings entered into contracts (hereafter referred to as the contracts) which contracts provided among other things, that irrigable lands within the districts are entitled to delivery of the proportionate share of water actually available under the Owyhee Reclamation Project each irrigation season but not more than required for beneficial use on the lands. The defendant, during the 1946 irrigation season, had

water available to deliver a maximum of four acre feet per irrigable acre for the minimum charge.

4. It was covenanted and agreed, among other things, by and between the defendant and the irrigation districts in the contracts, that the said districts would indemnify and hold harmless the defendant against any and all costs arising from the construction, operation and maintenance of the irrigation system constructed by the defendant to reclaim and serve the irrigated acreage within the said districts and that the provisions pursuant to which the said districts so stipulated are in all the contracts substantially as follows:

Computation of Costs

The cost of which under this contract the District obligates itself to pay a pro rata share, as determined by the Secretary, shall embrace all expenditures of whatsoever kind, in connection with, growing out of, or resulting from the work described, including the cost of labor, material, equipment, engineering and legal work, superintendence, administration and overhead, right of way, property and damage of all kinds, and shall include all sums expended by the United States in surveys and investigations in connection with the irrigation of the project lands, both prior to and after the execution of this contract, and the expense of all soil investigations and other preliminary work and land appraisal provided for in Articles 41 and 42 hereof, and shall also include the expense incurred by the United States in operating or maintaining any of

said works prior to the taking over of the operation and maintenance thereof by the said Board of Control provided for herein as the operating agent of this District and the other districts which may by contract with the United States become entitled to receive water from said works.

Shortage of Water

On account of drought, inaccuracy in distribution, or other causes, there may occur at times a shortage in the water supply for lands of the District, and while the United States will use all reasonable means to guard against such shortage, in no event shall any liability accrue against the United States, its officers, agents or employees for any damage, direct or indirect, arising therefrom, nor shall any obligation provided for herein be reduced because of any such shortage or damage.

5. The contracts likewise provided that every landowner within the districts would be considered to have consented to the provisions of the aforesaid contracts and to have been bound by the terms and conditions thereof, if he did not object to the confirmation of the contracts by the Court having jurisdiction thereof or the proceedings authorizing the same, or if he received and used water made available through the irrigation works of the Owyhee Project There terms were used:

Accepting Benefits Waives Objection

Every landowner of the District who offers no

objection to the confirmation of this contract by the court, or the proceedings authorizing the same, or who accepts the benefits thereof by receiving or using water made available through the works constructed by the United States, thereby consents to all the provisions of this contract and waives any objection thereto.

6. The plaintiff(s) in this case entered into a contract with one the irrigation districts named in paragraph 8 hereof, ratifying, confirming and consenting to the terms of the contracts between the defendant and the irrigation districts, binding themselves, their heirs, successors and assigns and so binding the irrigable lands described and involved herein, to all the terms and conditions of the contracts.

7. Neither the plaintiff(s) or their predecessor(s) in interest objected to the confirmation of said contracts between the defendant and the irrigation districts or the proceedings authorizing the same at the time of the confirmation of the contracts by the court nor at any time, but to the contrary, the plaintiff(s) and/or their predecessors in interest have utilized irrigation water and have accepted the benefits which have been provided by the contracts and have enjoyed all of the benefits available under said contracts.

8. Decrees were duly entered by courts of competent jurisdiction, confirming contracts between the defendant and the following districts:

	Dated
Owyhee Irrigation District	10/14/1926
Gem Irrigation District	10/14/1926
Ontario-Nyssa Irrigation District	2/ 5/1927
Payette-Oregon Slope Irrigation District	10/14/1926
Crystal Irrigation District	11/28/1931
Bench Irrigation District	10/ 5/1931
Slide Irrigation District	10/14/1926
Advancement Irrigation District	9/ 1/1936

Each of the contracts between the defendant and the above-named irrigation districts contains provisions similar in substance with the paragraphs quoted in Nos. 4 and 5 of these findings.

9. During all of 1946, the defendant was in control of and operating the Owyhee Reclamation Project, including the north canal of the Owyhee Reclamation Project, which canal is approximately 70 miles long. A break occurred in the north canal on Sunday, July 14, 1946, at a point approximately 36.15 miles from the head of the canal and near the west line of and in Sec. 1, T. 19, S., R. 46 E., W. M. The break was approximately 50 feet wide at its widest point. The water in the canal, which could not be diverted from the canal above and below the break, drained out of the canal through the break, and repair work was immediately commenced. On Thursday, July 18, 1946, repairs had progressed to a point where the engineer in charge of the repair work ordered water turned into the canal, which was done. A second break occurred at approximately 1:30 a.m., July 19, 1946, downstream from the first break. The canal was repaired and being operated under full capacity on the 31st day of July, 1946.

10. Water users, including the plaintiff(s), dependent upon the north canal for a supply of water for purposes of irrigation immediately following the first break were in immediate need of water and the defendant instituted and carried forward the work of repair under emergency conditions at utmost speed.

11. The burden of proof lay on plaintiff(s) to establish by fair preponderance of the evidence that the proximate cause of the alleged damage was some negligent act or omission on the part of the defendant, and the plaintiff(s) have failed to sustain that burden.

12. It was the duty of the defendant to exercise reasonable care in the operation of the north canal to enable it to deliver water to the plaintiff(s) for irrigation purposes.

13. It was the duty of defendant to exercise reasonable care at all times herein involved in the construction, operation, maintenance, and repair of the north canal, including proper inspection and for all purposes pertinent in these cases. The plaintiff(s) failed to prove by a preponderance of the evidence that the defendant failed to exercise that degree of care.

14. The defendant, based on its knowledge of the construction, operation, and maintenance of the canal under its system of inspection, was not bound to anticipate the breaks and the plaintiff(s) have failed to establish by a fair preponderance of the evidence that the defendant had such knowl-

edge or information as would cause it to anticipate such breaks and the defendant in the exercise of ordinary care was not bound to anticipate that breaks would occur.

15. The evidence established that the defendant, acting in an emergency, took prompt and efficient methods to rebuild and repair the north canal subsequent to the first break, and reasonable care was exercised to determine the cause of said break, and the work of repair of the break was done and completed promptly, with reasonable care and in a good workmanlike manner.

16. The evidence established that at the time of making the first repair, the defendant made an investigation to ascertain the cause of the break and exercised reasonable care in that regard; and that at the time the first repair was made, the defendant did not know the cause of the first break, and that defendant did not know of anything that would cause it to anticipate the occurrence of the second break.

17. The evidence adduced by plaintiff(s) failed to establish the cause of either the first or the second break in the north canal. The evidence adduced by defendant established that subsequent to the second break, there was discovered situated beneath the floor of the canal a weak stratum of earth formation.

18. Respecting both the first and second breaks of the north canal the plaintiff(s) failed to prove that the defendant did not use reasonable care in

the construction, maintenance, operation, inspection, or repair of said canal.

Based upon the record and findings of fact herein, the Court makes the following

Conclusions of Law

1. This court has jurisdiction of the claim specified in the complaint herein.

2. The burden of proof lay on plaintiff(s) to establish by a fair preponderance of the evidence that the proximate cause of the alleged damages was some negligent act or omission on the part of the defendant.

3. The evidence does not establish that the proximate cause of plaintiff(s)' alleged damage was caused by any negligent act or omission on the part of the defendant.

4. Plaintiff(s) have failed to establish that the defendant did not exercise reasonable care in the construction, operation, maintenance, repair, or inspection of the north canal at all times in controversy.

5. The defendant is entitled to judgment and judgment shall be entered on the merits in favor of the defendant, against the plaintiff(s) in this case, all in accordance with the opinion of this Court which has been filed in the consolidated cases.

/s/ JAMES ALGER FEE,
Chief Judge.

[Endorsed]: Filed June 22, 1950.

In the United States District Court
for the District of Oregon

Civil No. 3669

One of Consolidated Cases Civil Nos. 3669 to 3853,
Inclusive, and 3861 to 3865, Inclusive, and 3871

SHEFF WHITE, ORLAND WHITE and JOE
M. WHITE,

Plaintiffs,

vs.

UNITED STATES OF AMERICA,

Defendant.

FINAL JUDGMENT

The above-entitled case having come on regularly for trial in open court, the court having heard the evidence therein, and the arguments of counsel; and having entered its findings of fact and conclusions of law herein it is hereby

Ordered, Adjudged and Decreed that plaintiff(s) take nothing by their complaint herein; that the defendant have judgment herein on the merits against the plaintiff(s); and that defendant recover from plaintiff(s) its cost and disbursements in this action, and that execution issue therefor.

Done and dated in open court this 22nd day of June, 1950.

/s/ JAMES ALGER FEE,
Chief Judge.

[Endorsed]: Filed June 22, 1950.

[Title of District Court and Cause.]

NOTICE OF APPEAL

Notice is Hereby Given that Sheff White, plaintiff above named, hereby appeals to the United States Circuit Court of Appeals for the Ninth Circuit from the final Judgment of Dismissal entered in this action on the 22nd day of June, 1950.

/s/ P. J. GALLAGHER,
Of Counsel for Sheff White.
Address: Ontario, Oregon.

[Endorsed]: Filed August 21, 1950.

In the District Court of the United States
for the District of Oregon

No. Civ. 3669

SHEFF WHITE, ORLAND WHITE and JOE
M. WHITE,

Plaintiffs,

vs.

UNITED STATES OF AMERICA,

Defendant.

No. Civ. 3871

IRA R. URE and EDNA B. URE, Husband and
Wife; EDWARD C. MUIR and MARY W.
MUIR, Husband and Wife; and CLARENCE
ROBERTS and AFTON W. ROBERTS, Hus-
Plaintiffs,

vs.

THE UNITED STATES OF AMERICA,

Defendant.

Before: Honorable James Alger Fee,
Judge.

Appearances:

GALLAGHER & GALLAGHER,

Attorneys for Plaintiffs in Case Civ. No.
3669.

LYTLE, KILPATRICK & CAMPBELL,

By LYTLE & KILPATRICK,

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3871.

HENRY L. HESS,

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Division.

JASON D. LEE,

Special Attorney, Department of Justice,
and

HOWARD R. STINSON,

Regional Counsel, Bureau of Reclamation,
Department of the Interior of the United
States.

Attorneys for Defendant.

TESTIMONY AND PROCEEDINGS

Wednesday, June 9, 1948

Mr. P. J. Gallagher: Does your Honor care to have us make any opening statements at all?

The Court: You may follow your own wishes in that regard, Mr. Gallagher. If you want to make an opening statement, you may do so.

Mr. P. J. Gallagher: I won't make an opening statement, but I might make a very short statement as to features of the case the witnesses are going to be offered upon, and this afternoon we are going to start with the group of witnesses who will testify as to their observations of the terrain and territory immediately under the ditch, as to whether there was a seepage of water coming from the ditch. That will be the purpose of the several witnesses.

The Court: Is there a map now in the record?

Mr. P. J. Gallagher: There is a map in the record. We have drawings of the terrain and surface of the ditch.

The Court: Is there a general map of the area?

Mr. Hess: Yes, your Honor, there is one in the evidence.

The Court: Let's have that introduced in the evidence and put up.

Mr. Hess: If your Honor please, before any evidence is [3*] introduced in the case, now that the pre-trial orders have all been entered in the case, the Government moves for an order requiring the plaintiffs to elect under what theory they will try the cases here, whether under the Federal Tort

*Page numbering appearing at top of page of original Certified Transcript of Record.

Claims Act, 28 U.S.C.A. 921, et seq., or under the so-called Tucker Act, 28 U.S.C.A. 41, subsection 20.

Mr. P. J. Gallagher: It has always been our position, your Honor, that it is not necessary for us to make any election. We have always argued that we are not required to make any election, so long as our pleadings come within the purview of the language of the Act; whether it is a tort or a wrongful act or omission of the Government, it gives rise to a cause for claim. So long as our pleadings and the testimony come within that language, it is immaterial whether it is violation of contract or a pure common-law tort or pure common-law negligence. The issues have been framed on both theories, your Honor.

The Court: Motion denied.

Mr. P. J. Gallagher: Call Mr. Sproul.

The Court: Let's get this map up first.

Mr. P. J. Gallagher: Oh, yes. I beg your pardon. Are you sure you got your map in?

Mr. Hess: Shouldn't we introduce our map and the exhibits and all of them that take care of the contracts and so forth?

Mr. P. J. Gallagher: Yes, I would go for [4] that.

Mr. Hess: If the Court would prefer it to go in the other order that makes no difference to us.

The Court: I don't care how you put it in. The order of proof lies in your hands. The Court has no interest in it.

Mr. Gallagher: What exhibit number is that?

Mr. Hess: Defendant's Exhibit No. 35.

Mr. P. J. Gallagher: We have now been handed Exhibit No. 35, your Honor, which is a map of the whole project.

The Court: Any objection?

Mr. Hess: To its introduction? No, your Honor.

The Court: All right, have it marked.

The Clerk: 35 received.

(Owyhee Irrigation Project Map No. 23300A, so offered and received, having previously been marked for identification, was thereupon marked received as Defendant's Exhibit 35 in Civil Cases Nos. 3669, 3871, and cases consolidated therewith for trial.)

Mr. P. J. Gallagher: May we put that up?

The Court: Yes, post it up there. Will you supervise that, so that north is at the top.

Mr. P. J. Gallagher: Yes; and will you put that up so that we will have room for some others. Would it suit your purposes better to introduce all the exhibits? [5]

Mr. Hess: Counsel suggests that we might introduce all of the exhibits at the present time, your Honor, and we have no objection, if you wish to do that.

Mr. P. J. Gallagher: It won't take too long a time. Are you going to offer them one at a time or all together?

Mr. Hess: I will offer them one at a time, and then if there is any objection you can make it.

Mr. P. J. Gallagher: It will take all afternoon to do it.

Mr. Hess: Well, you don't need to offer your

photographs, but the contracts as the basis of your claim.

The Court: I think you might offer those that there is no disagreement upon, introduce them all at this time.

Mr. P. J. Gallagher: Very well, your Honor.

The Court: If you want to offer them en masse, if there is no objection, you may do so, or offer them one by one and enter your objections, just as you wish.

Mr. P. J. Gallagher: Plaintiff at this time wishes to introduce all of the exhibits that are enumerated in the pre-trial orders and numbered as being plaintiffs' exhibits.

Mr. Hess: We renew the objections that we have had made in the pre-trial orders, your Honor. We object to the competency and materiality of plaintiffs' photographs, Exhibit No. 27, No. 7,—

Mr. Lytle: No. 7?

Mr. Hess: No. 27, and to Exhibits Nos. 61 and 62, on the [6] ground that they are irrelevant and immaterial,—61 and 62 are the applications for appropriation of water, to the State. We object to Exhibits 68 to 79, inclusive, being photographs taken during the year of '48, as being too remote and do not disclose the condition of the canal at the time of the breaks. And we object to Exhibits Nos. 80, 81 and 82, profile maps, in that they do not show the real condition of the canal at the place, the point of the break, and they are irrelevant and immaterial.

The Court: The Court admits all the other ex-

hibits except those objected to and will reserve ruling upon the objections until further proof is offered.

Mr. P. J. Gallagher: I will lay a further foundation.

The Court: Yes.

Mr. Hess: Yes, and that would apply also to our objections to the introduction of exhibits marked 34, 36, 37, 38, 39, 40 and 41,—Oh, that is our exhibit. We don't want to put that in. I got down too far.

The Court: That objection is overruled.

Mr. Hess: Now, your Honor, the Government offers all of its exhibits that have been designated in the pre-trial orders.

Mr. P. J. Gallagher: There are two or three of those we had formal objection to in the earlier pre-trial orders, and we will designate those in just a moment.

The Court: That relates to the objection just raised by [7] the Government?

Mr. P. J. Gallagher: Yes, I think that is right. Relating to the objections, we have made objections prior hereto to Exhibits 34, 36, 37, 38, 39, 40 and 41, on the basis that they are incompetent, irrelevant and immaterial and not pertaining to the proof of any issue at the trial herein, and I presume that the same ruling could prevail there, that when they are really being considered then we will renew our objection. Oh, yes, and then there is another set of exhibits that we wish to object to, your Honor: Exhibits Nos. 36, 37, 38, 39, 40 and 41, being photostatic copies of contracts between the Government

and the other irrigation districts, are objected to as incompetent, irrelevant and immaterial and not competent to prove any issue in this case.

The Court: The Court will reserve ruling on all these until further proof is offered.

Mr. P. J. Gallagher: Very well, your Honor. We will call Mr. Sproul.

The Court: And the other defendant's exhibits are admitted, except those on which specific objection is made, on which the Court has reserved ruling.

Mr. P. J. Gallagher: Yes.

(The various exhibits referred to, so offered and received, were thereupon marked received as directed by the Court.) [8]

JEROME SPROUL

was thereupon produced as a witness in behalf of the plaintiffs and was examined and testified as follows:

The Clerk: Will you state your name, please?

A. Jerome Sproul.

(The witness was thereupon duly sworn.)

Direct Examination

By Mr. P. J. Gallagher.

Q. Mr. Sproul, your full name is George Sproul?

A. Jerome Sproul (spelling), J-e-r-o-m-e.

Q. And you are commonly known as Jerry Sproul? A. Yes, sir.

Q. How long have you lived in this community, Mr. Sproul? A. Since March, 1938.

(Testimony of Jerome Sproul.)

Q. What is your occupation or profession?

A. I am a farmer.

Q. Are you a water user under the Owyhee Project?

A. Yes, sir.

Q. Generally speaking, without going into detail, where is your farm in relation to the place that the break took place in '46?

A. Generally speaking, it is about six miles southwest of the break.

Q. That would be on what lateral?

A. Northwest of the break, instead of southwest. [9]

Q. Northwest of the break?

A. Yes.

Q. And what lateral are you served from?

A. I believe it is 410.

Q. That is the number?

A. Yes.

Q. And what territory does it serve, generally speaking?

A. Well, it would serve the Lincoln Bench.

Q. That would be on the south side of the Vale-Ontario highway and some six miles up from the pipe line?

A. Yes.

Q. Now, were you at the break shortly after it took place in July, 1946?

A. I was.

Q. Will you tell the Court about when you got there in relation to the time that the ditch first broke?

A. I was there after the ditch broke the second time, about twelve hours after it broke.

Q. Were you there at the time it broke the first time, after that?

A. No.

(Testimony of Jerome Sproul.)

Q. That was your first trip down after either of the breaks?

A. That was the first time that I visited the break, yes.

Q. Did you observe the conditions relating to the break in the territory surrounding it? [10]

A. Yes, I climbed down through the break where the ditch had washed out and walked across the patch of ground there to the north, and I noticed a decided seepage there.

Q. How much area did you observe to be in that condition?

A. Well, as I remember, it was between 150 and 250 feet from the break north to the edge of the seepage.

Q. Did you observe the extent of that area as it extended eastward from the ditch?

A. Yes, I did at the time. As I remember now, it was between four and five hundred feet.

Q. That would be a patch, then, that you observed at that time, of 150 to 200 feet wide and how long deep?

A. About, oh, I would say from 450 to 500 feet.

Q. Did you observe washing that had been washed out by the water from the break?

A. Yes, very decidedly.

Q. And the area that you examined, would that be north or south of that wash?

A. It would be north.

Q. Did you then or shortly thereafter observe

(Testimony of Jerome Sproul.)

the condition of the area on the south of the wash?

A. No, I did not.

Q. I will ask the Bailiff to hand you what has been marked as Plaintiffs' Exhibit No. 82 and to examine that paper. Calling your attention to a document marked as Plaintiffs' [11] Exhibit 82, I will ask you if that drawing outlines substantially the part of the area that you have just been talking about as you having examined?

A. Yes, this drawing would just about represent the wash as I saw it at that time.

Q. Does it represent about the area of land that you examined and noticed to the north of the wash?

A. Just about, yes.

Q. I call your attention to the fact that that drawing is made on a scale of one inch to every 50 feet, or 50 feet to an inch, and ask you if that coincides with about the area that you examined?

A. Yes, I believe it does.

Mr. Veeder: We object to that, your Honor. The witness has not been qualified to testify as to what appears on the map or that he would be capable of analyzing what the exhibit is intended to depict.

The Court: Overruled.

Mr. P. J. Gallagher: That will be all at this time, now, Jerry.

Mr. Hess: There is one other objection that I would like to put in there, that this is a half-mile away from the break.

The Court: That goes to the weight and not competency.

(Testimony of Jerome Sproul.)

Q. (By Mr. P. J. Gallagher): Mr. Sproul, counsel has made the observation that this area that we have been talking about is [12] a half-mile away from the break. What is the fact as to the location of this area and the break, the location of the break?

A. I don't know as I understand your question, but the wash that I saw when I was at the break was not a half-mile from the break. This area that I said that I walked across and noticed a seepage in was not a half-mile from the break; it was right at the break.

Q. How close was it up to the embankment?

A. It came up to the embankment.

Q. And this wash that you speak about, where did it lie in relation to where the break actually occurred in the ditch?

A. It started at the break and extended down the hill, down through a canyon—a little draw there.

Q. Now, have you been back recently and after they fixed the break up?

A. Yes, I visited that place about the middle of March, I would say between the 20th and the 25th of March, 1948.

Q. And in filling the break have there been part of the little washes that touched up into the break filled in?

A. You mean this washout that the water flowed in after——

Q. Yes. A. Yes, it had been.

Q. That has been filled in? A. Yes.

(Testimony of Jerome Sproul.)

Q. Now, were you out there during the month of March with [13] Mr. Merritt and one of the Mr. Bronkens, engineers, and Mr. Bouton?

A. Yes, I was.

Q. And at that time did you go over this area with one of those engineers?

A. Yes, quite thoroughly.

Q. Do you remember which one it was?

A. I am not sure of the name, but I can point him out to you.

Q. I see. A. I believe it was Mr.——

Q. Was it Mr. Merritt, the older gentleman?

A. It was the largest one of the older gentlemen.

Mr. Gallagher (To a gentleman in the audience):
Will you stand up.

Q. Was it this Mr. Bronken you were out there with?
A. No, it was not.

Q. Was it Mr. Bronken, or one of the others?

A. It was Mr. Bouton.

Q. Oh, Mr. Bouton. (A gentleman in the audience arose to his feet.)

A. Yes, that is the man.

Mr. P. J. Gallagher: That will be all at this time, Mr. Sproul. I was just calling him for the purpose of laying a foundation. He will be back on the stand. [14]

Cross-Examination

By Mr. Veeder:

Q. Mr. Sproul, would you state the evidence of seepage that you observed on the canal?

(Testimony of Jerome Sproul.)

A. Well, I walked from this wash north, as I stated before, and I noticed that there was no crops growing on that piece of ground and there was no arrangements made to irrigate—that is, it was not corrugated—and I noticed a decided amount of moisture there and I reached over and picked up a handful of it and I would have pronounced it too wet to plow.

Q. That was the only evidence that you observed of the seepage?

A. Well, I also noticed that it was decidedly uphill from the break. The water would have had to have run uphill from the break to have gotten from the break over that area.

Q. Was it on the toe of the canal, or would you have located it on the bank of the canal?

A. Well, it extended from the bank down the hill.

Q. Just how high up on the bank was it?

A. Well, it didn't run up on the bank, as I remember, at all.

Q. It didn't run up on the bank at all?

A. It started at the bank and ran down the hill.

Q. Did you observe another irrigation ditch along that area? A. I did not, no. [15]

Q. At the toe of the canal?

A. You mean at the base of the grade?

Q. That is correct, at the base of the bank of the canal? A. I don't remember any.

Q. You didn't observe it? A. No.

Mr. Veeder: That will be all.

(Testimony of Jerome Sproul.)

Mr. P. J. Gallagher: That is all at this time, Mr. Sproul.

(Witness excused.)

Mr. P. J. Gallagher: Oh, yes, we want leave to recall this witness later on. The purpose of this examination is for foundation on this map.

Call Mr. Bronken. [16]

PAUL BRONKEN

was thereupon produced as a witness in behalf of the plaintiffs herein and was examined and testified as follows:

The Clerk: What is your name, please?

A. Paul Bronken (spelling), B-r-o-n-k-e-n.

(The witness was thereupon duly sworn.)

Direct Examination

By Mr. P. J. Gallagher:

Q. Mr. Bronken, where do you live?

A. Boise, Idaho.

Q. What is your profession?

A. Assistant mining and civil—Assistant for Raymond J. Briggs. It is a consulting engineering firm.

Q. I see; and have you had training in that line?

A. Yes, I have.

Q. Just briefly, what schools did you go to?

A. What schools?

Q. Yes.

(Testimony of Paul Bronken.)

A. I went to Boise Junior College, University of Idaho, Montana School of Mines, Colorado School of Mines, and Columbia University.

Q. I see. And what did you major in, Paul?

A. Mining and geology.

Q. Now, how long have you been practicing?

A. Since July 15th, about, 1946. [17]

Q. I see; and you are associated with whom now?

A. Raymond J. Briggs and Associates.

Q. In Boise? A. In Boise.

Q. Were you called upon, during the months of March or February of this year, Paul, to make some surveys in the area near what we have termed as the break in the Owyhee Canal, in this county?

A. Yes, sir.

Q. Do you have any notes as to what days you were working? A. Yes, sir.

Q. Will you just give those?

A. March 25, March 26, March 29, 1948; April 1, 1948; and May 19, 1948.

Q. I see. Showing you Exhibit No. 82, I will ask you if that is a drawing that you made on the ground in the vicinity that I have just mentioned in my last question?

A. Yes, sir, this is the drawing that I made.

Q. And what does that purport to show? What did you attempt to show on that, Paul?

A. I attempted to show the outline of the wash that was created below the toe of the bank of the canal, and also of the ground and the field that had

(Testimony of Paul Bronken.)

been affected somewhat by seepage water through the bank of the canal.

Q. And what evidence did you find there of seepage water that [18] enabled you to make that drawing?

Mr. Hess: We object to that, your Honor. It is too remote. This is 1948 he is talking about. It is two years after the break.

The Court: Overruled.

Mr. P. J. Gallagher: Go ahead.

A. The evidence I used for determining this area of land affected by seepage was due to the change in cultivation, or, rather, the change in growth of vegetation on this ground. This field evidently at one time had been planted and cultivated as an alfalfa field, and this area here has outlined as best we could determine where the alfalfa had been retarded in growth, from the best we could determine, from excess of water on the ground.

Q. Did you attempt then to make a fair delineation on the map to show what had been affected and what had not been affected?

A. I tried to make a fair delineation, like you say, as to the field which I thought had been cultivated and was now not being used; that is, not being used as such.

Q. That is all, Paul, for that. Now, just while you are on the stand, Paul, there are some other exhibits that I would like to have you identify. The Bailiff will show you what has been marked as Ex-

(Testimony of Paul Bronken.)

hibit No. 80, and I will ask you if you made the drawing shown on Exhibit 80? [19]

A. Yes, I made this drawing.

Q. And was that based upon information that came about the same time, on the same trips to the area?

A. Yes, sir.

Q. And is that drawing made to scale, too?

A. Yes, sir.

Q. And what is attempted to be shown on that drawing, Paul?

A. The attempt to be shown on this drawing is some one of these formations,—sandy, pervious formations and blocky, open formations, that we observed in the bank and also at the top of the wash below the canal toe.

Q. What is the relation between the drawings that you have in your hands now, that is, Exhibit 80, and the one that the Court has, which is 82?

A. The relationship is the cross-section through that plat that he has there, which would be up through the middle of the left fork of the wash on that exhibit.

Q. Eighty-two? A. Eighty-two.

Q. Does that exhibit you have in your hand—that is 80, isn't it?

A. Eighty.

Q. Does that show the condition that you found upon the ground, particularly as to the location of that pervious structure? [20]

A. Yes, sir.

Q. Now, was that made at a time when there was no water in the ditch?

A. Yes, sir.

(Testimony of Paul Bronken.)

Q. And could you give us your best judgment as to which day you made the examination of the ditch from which that drawing was made?

A. March 25th or March 26th, one of those two days. Both days we were out and took—I mean we started to work one day and finished the next day, and we probably did a little bit of this work on both days.

Q. Which one of the engineers was with you?

A. Mr. Bouton and Mr. Bronken, Karsten T. Bronken.

Q. That is your brother? A. Yes, sir.

Q. And Mr. Bouton is here and can amplify your testimony on that drawing and what it shows?

A. Yes, sir.

Q. I now show you Exhibit No. 81, Paul, and ask you if that is another drawing that you made from information based upon your visit to the——

A. Yes, sir, that is a drawing that I made.

Q. And what does that purport to show, Paul?

A. This is a section along the axis of the canal, the main North Canal, right above the wash, which we assumed to be [21] where the break was. It purports to show where the sandy formations have been cut off and have somewhat been displaced vertically and otherwise have been eroded out on the horizontal displacement.

Q. And is that drawing made to scale, Paul?

A. Yes, sir, it is made to scale.

Q. And does it show with reasonable accuracy

(Testimony of Paul Bronken.)

the various things that you have mentioned that you have tried to depict upon the map?

A. Yes, sir.

Mr. P. J. Gallagher: That will be all, Paul. Oh, they want to cross-examine you. A. Oh.

Cross-Examination

By Mr. Veeder:

Q. What were the crops that you said were growing on the field that you refer to?

A. Alfalfa.

Q. What were the evidences of that crop?

A. At the time we observed it, it was the lack of growth and kind of brown character of the alfalfa roots.

Q. Now, that was in March? A. Yes.

Q. How does alfalfa usually look along in the spring of the year? [22]

A. How does it usually look?

Q. Yes. How would it differ from the way you described it? Isn't alfalfa usually dead or in a dormant state at that time?

A. Yes, it is in a dormant state, but at that time you could see where—maybe I had better qualify it. The abundancy of the alfalfa crops were not evident in this territory that I have mapped.

Q. Well, couldn't that have occurred from reasons other than—this was two years prior to the time. Couldn't other causes have brought that situation about on alfalfa?

A. I wouldn't say they could not.

Q. What was that, again?

(Testimony of Paul Bronken.)

A. Will you state your question again?

Q. I say, other causes could perhaps have contributed to that condition, isn't that correct?

A. They could contribute to it, I imagine.

Q. You are not sure that the seepage in 1946 could have caused that, are you?

A. Well, I based some assumption on that, according to the growth.

Q. You were not there in '46, were you?

A. No, sir.

Q. You had no opportunity to examine it until almost two years afterwards?

A. Yes, sir.

Q. And yet you think 1946 seepage could have caused that?

A. Well, I think seepage was present there throughout 1946, 1947 and 1948, and there is seepage there now.

Q. It might have been 1947 seepage that could have caused that?

A. Yes, sir.

Q. On Exhibit No. 81 there is a designation, "Section along axis of canal, Station 36 plus 60 to Station 36 plus 800." Would you state what that means?

A. The stationing?

Q. Yes. A. Up——

Mr. P. J. Gallagher: Wait until he sees it. Take a look at the exhibit, Paul.

A. Oh, I am familiar with it. Well, from 36 plus 600—you said "60," I think—to 36 plus 800,—at Mile Post 36 was the basis we used for running the lines up and down this canal. Mile Post 36 happens to be upstream, up the canal, 600 feet from

(Testimony of Paul Bronken.)

this point I have marked on the plat, along the axis of the canal.

Q. (By Mr. Veeder): What mile post was that, would you state? A. Mile Post 36.

Q. Well, Mile Post 36 from what? Mile Post 36,—would you explain what that means?

A. I imagine that is a post that is 36 miles down from the [24] beginning of the canal.

Q. Well, where is the beginning of the canal?

A. I imagine at the reservoir.

Q. Whose mile post was that that you are referring to?

A. I didn't see them put it in, but I imagine the Government put it in, or the contractors.

Q. Wouldn't that, locating it as you have stated, wouldn't that put the mile post well below, about half a mile below the break?

A. Below the break?

Q. Yes. A. No, sir.

Q. What was the type of investigation that you made to ascertain the porous area to which you refer? A. The type of investigation?

Q. Yes.

A. First would be our actual presence on the ground, walking over the ground and looking at these formations, taking deep shots of them with front compass and running levels on them with different horizons where we saw these same formations.

Q. There was no other investigation to ascertain the strike of these porous areas?

(Testimony of Paul Bronken.)

A. You say the strike of the porous areas?

Q. Yes.

A. You can get the dip and the rate of the porous areas, and [25] unless you have the cropping out of them you cannot get the cropping out.

Q. Where did you get the cropping out?

A. In the wash area.

Q. Those outcroppings were at the place where the break occurred?

A. Yes.

Q. That is all—would you state how old are you?

A. Twenty-five.

Q. And how long have you been in the practice of geology?

A. How long I have been practicing?

Q. Yes. A. July of '46.

Mr. Veeder: July, '46. That is all.

Redirect Examination

By Mr. P. J. Gallagher:

Q. One other question, Paul, before you leave the stand: You spoke about the outcropping of this porous area being in the bed of the canal. Does the exhibit that delineates that—which is it? Eighty-one?

A. Both 80 and 81 do.

Q. Well, does 80 show about the proper location of that porous structure in the canal bed and on the opposite bank, the upper bank?

A. Yes, sir.

Q. Were those photographs made showing the presence of that porous area in the bank? Is that shown on some other exhibits?

A. Yes, sir.

Q. And that was made while you were there, too?

A. Yes, sir.

(Testimony of Paul Bronken.)

Q. I think that is all—oh, just a second. Now, was the outcropping that showed in the bank of the canal, the upper bank,—is that the same outcropping that is shown in this wash down below the bank?

A. As near as I could determine by hand-sampling and looking at the material, it was the same material.

Q. Did you take any observations or surveys to show the pitch and the similarity in the grade?

A. Yes, sir.

Q. What was the result of that, as to whether or not that outcropping ran back under the canal bank?

A. You mean whether the——

Q. Whether the outcropping that is shown down in the wash ran back under the bank?

A. Yes, sir.

Q. And it was obvious and exposed in the canal bank?

A. Yes, sir.

Mr. P. J. Gallagher: That is all, Paul. That is all.

(Witness excused.) [27]

Mr. P. J. Gallagher: I would like to offer in evidence No. 82, the one that shows that area.

Mr. Veeder: We object to that exhibit on the ground that it does not show the real condition of the canal and that it is irrelevant and immaterial to this case.

Mr. P. J. Gallagher: It is offered, your Honor, for the purpose of assisting the other witnesses to—or permitting them to say where in this area they

saw certain conditions. It is not offered to prove presence of leakage at all.

The Court: Objection overruled. The exhibit is admitted.

The Clerk: Eighty-two received.

(The profile map referred to, so offered and received, having previously been marked for identification, was thereupon marked received as Plaintiffs' Exhibit 82.)

Mr. Veeder: Has there been a ruling on the objection, your Honor?

The Court: Yes, I ruled just as definitely as I knew how. I overruled it and admitted the exhibit in evidence.

Mr. P. J. Gallagher: Would you put that on the board, please. We will call Mr. Matherly, Theodore Matherly. [28]

THEODORE MATHERLY

was thereupon produced as a witness in behalf of the plaintiffs herein and was examined and testified as follows:

The Clerk: Is Theodore Matherly your true name?

A. Yes, sir.

The Clerk: M-a-t-t-e-r-l-y?

A. M-a-t-h-e-r-l-y.

(The witness was thereupon duly sworn.)

(Testimony of Theodore Matherly.)

Direct Examination

By Mr. P. J. Gallagher:

Q. Your name is Theodore Matherly?

A. Yes, sir.

Q. Where do you live, Mr. Matherly?

A. Ontario, Oregon, Route 1.

Q. That is on a farm? Your home is on a farm?

A. Yes, sir, on a farm.

Q. And where is it in relation to the break that occurred in the Owyhee Canal in July of 1946? Where is your farm in relation to that break?

A. Right under it, east of the break.

Q. About how far? A. Just about a mile.

Q. Your farm would be about a mile east of the break? A. A little east and a little south.

Q. And is your farm located where it caught the floodwaters [29] from the break in the canal?

A. Yes, it did, about three acres of it.

Q. About three acres of your farm was covered with the water?

A. Of my crop land, and about three acres of pasture.

Q. I see. Do you remember the occasion of the break? Do you remember about the break happening? A. Yes.

Q. Now, how long had you lived there before this break occurred?

A. Oh, about eight years.

Q. By the way, you are not interested in this

(Testimony of Theodore Matherly.)

lawsuit? That is, I mean to say, you have no claim filed here? A. No, I haven't.

Q. Did you know the man who owned the farm where the break occurred? A. Yes, sir.

Q. What is his name? A. Ben Shaw.

Q. Ben Shaw. Had you ever visited on that place or worked on that place prior to the time of the break, Mr. Matherly?

A. Yes, sir, I did some plowing for him.

Q. And what years would you say that you plowed that for—did you plow it for Mr. Shaw?

A. Yes, I plowed some for Mr. Shaw. I just don't remember what year that was, to tell the truth. [30]

Q. Well, was it the years just prior to the time that the ditch broke?

A. Yes, about—I believe it was about the year before the ditch broke.

Q. And, assuming that the ditch broke in '46, that would put it back to '45- A. Yes.

Mr. Hess: We object to these questions assuming what the answer should be, leading and suggestive.

The Court: Yes, that is a defect that counsel has to observe in this instance. It doesn't make any difference in some of them, but watch the character of your examination.

Mr. P. J. Gallagher: Yes, I will try to.

Q. Among other areas that you plowed, Mr. Matherly, did you plow on any land that laid up close to the ditch?

(Testimony of Theodore Matherly.)

A. Well, not only that one field for Mr. Shaw.

Q. And where was the field that you actually did plow in relation to the bank of the ditch?

A. It was right under the ditch, kind of close to that draw that runs down through there.

Q. Can you see that map that is nearest to you, Exhibit No. 82, that is on the billboard there? Does that drawing, in your mind, show about the location of the land under the ditch? A. Yes, it does.

Q. Now, step over there and show to the Court about where you [31] were plowing, Mr. Matherly.

A. This shows here the draw that the water rushed down (indicating).

Q. Yes.

A. Right in this area, right in here (indicating). We was plowing right down through this draw, like this, and my outfit was mired down right in there (indicating).

Q. Now, will you take this pencil and just mark the word "Plowing" at about the spot that you say that you were plowing in there.

A. Well, I don't know that I could get that right on the spot or not.

Q. Oh, no,—just as near as you can.

A. But I could get somewheres close, I think. (Witness here placed a mark on said exhibit.)

Q. Will you put your initials after that, "T." or "T.M."?

(The witness thereupon initialed the map.)

Q. What time of the year was that?

A. That was in the spring, in March.

(Testimony of Theodore Matherly.)

Q. Was that before they were irrigating?

A. Yes; he hadn't been irrigating this field at the time I was plowing it.

Q. There was no water being used from the ditch on that land that you plowed?

A. No, not at that time. [32]

Q. That is what I mean. And what was the nature of your equipment you were trying to plow with?

A. I had an N Farmall, Rolo plow.

Q. What kind of plow?

A. Thirty-three horse.

Q. Tractor? A. Tractor.

Q. And what do you say, now, about whether you were able to plow on that or not?

A. No, we had to release on that. We couldn't plow it. We had to go around it.

Q. Why?

A. Too soft; couldn't go through it.

Q. Could you tell where the water was coming from, from the south of that land?

Mr. Hess: Just a minute. I think that engages in the realm of speculation.

The Court: Yes. If he knows he can tell. If he had seen any evidences, he can tell what the evidences were.

Q. (By Mr. P. J. Gallagher): If you know, Mr. Matherly, you can answer the question, if you know where the water came from.

A. Well, I presume it was coming from the seep from the ditch.

The Court: That answer is stricken.

(Testimony of Theodore Matherly.)

Q. (By Mr. P. J. Gallagher): Had you ever seen water seeping out of that ditch there? [33]

A. Yes, I seen water coming down that little draw there.

Q. In the immediate vicinity of where you were plowing there?

A. Well, it was pretty close to where we were plowing.

Q. How long were you attempting to get that work done in there for Mr. Shaw?

A. You mean how many hours was I——

Q. Yes, hours or days, or whatever it was?

A. Well, I was only up there a couple of days, because I have got a pretty big outfit and——

Q. Did you examine the area from where you were attempting to plow on up to the bank of the ditch, as to its being wet or not?

A. No, I did not.

Q. How far away from the bank of the ditch were you, I mean the lower embankment of the ditch, when you discovered this wet area?

A. Oh, a couple of hundred yards.

Q. How much of that whole area delineated on that map—there is supposed to be 4.30 acres—how much of that would you say was too wet to farm there in March of 1945?

A. Well, I really couldn't answer that question. It seemed to be in spots. We would hit a soft spot and I would get stuck and we would pull around a little way and then we would hit another one. There

(Testimony of Theodore Matherly.)

seemed to be several of those spots, and where we would hit them we would just leave them. [34]

Q. And how many spots would you say that you encountered there on that occasion that were too wet to plow? A. Oh, four or five.

Q. Have you been back since that time, any other years, Mr. Matherly?

A. No, not in there I haven't.

Q. Did you observe any water, any surface water, running in draws or canyons—not canyons—or ditches at all that spring there?

Mr. Veeder: I object. That is a leading question.

Mr. P. J. Gallagher: It may be leading.

Mr. Hess: It is immaterial, incompetent and immaterial.

The Court: No, the objection is overruled. He asked him if he saw any water. If he didn't see any he can say so.

Q. (By Mr. P. J. Gallagher): Did you understand my question, Mr. Matherly?

A. What was it, again?

The Court: Read the question.

Mr. Veeder: To what years do you refer?

Mr. P. J. Gallagher: '45.

The Court: You may cross-examine him about that. Go ahead. Let's get along with this.

Mr. P. J. Gallagher: Will you read the question to him.

(Testimony of Theodore Matherly.)

(Pending question read.)

A. Yes, I saw some water running down the draw. [35]

Q. Where were those particular draws, Mr. Matherly?

A. Well, that one draw there where I was plowing, and one north of that.

Q. And do you know what the source of that water was, where it came from?

A. I presume it was seeping from the ditch.

The Court: That is stricken.

Q. (By Mr. P. J. Gallagher): That is stricken out when you say "presume." How close did you see the water?

A. Well, I wasn't right up to the bank. I was pretty close to it.

Q. Now, did you see any other sources of water around there except what might have been held within the ditch?

A. Those are the only two places that I knew at that time.

Q. Did those two places seem to be natural springs or seepage?

A. Well, they seemed to be natural. That is all that I seen that summer.

Q. Were there springs in there before the ditch was dug at all?

A. No, there was not.

Mr. P. J. Gallagher: That is all.

(Testimony of Theodore Matherly.)

Cross-Examination

By Mr. Hess:

Q. How long have you lived in that vicinity,—that is, the place where you have your ranch? [36]

A. Oh, about eight years.

Q. About eight years?

A. Seven or eight years, something like that.

Q. When was this canal built?

A. I don't know. I couldn't give you the date on that.

Q. Where did you come from when you first moved to your ranch out there?

A. Well, I had been living around Nyssa and Ontario for the last twenty-five years.

Q. But you had no property over in that area?

A. Not at that time I didn't.

Q. Never had any property there at all. There is a ditch, a lateral ditch, a header or a lateral ditch, that runs underneath the lower bank of the canal along in this area of this Exhibit 82, or where this break occurred, rather,—There is a lateral ditch that runs along there, is there not, that irrigates the land down below that ditch at that point and in that vicinity? A. I don't know.

Q. And it was there and was used for that purpose in the year 1946, isn't that a fact?

A. I don't know.

Q. What about '44 or '45 or '43, or whenever you have plowed in there,—Was there a lateral or header ditch in there?

(Testimony of Theodore Matherly.)

A. Well, there could have been, but I didn't see it. [37]

Q. You didn't see that ditch at all?

A. No, sir.

Q. There could have been a ditch there?

A. There could have been.

Q. Where that water could have come from to have made the area damp where you were plowing?

A. Well, this man had never irrigated that field that year yet.

Q. You say he hadn't irrigated it that year yet?

A. No.

Q. This was in March, you say?

A. Along the last of March.

Q. Along the last of March. Do you know what time of year the water was turned in that North Canal that spring?

A. No, I couldn't tell you the dates.

Q. There was no water in that North Canal at that time when you plowed, was there?

A. Well, now, I couldn't say whether there was or not.

Q. You don't know whether there had been any water in that canal at all during that year up to the time you did that plowing?

A. Yes, I know there was water in there that year all right.

Q. But not prior to the time when you did the plowing, when you saw these wet spots?

A. Well, there probably wasn't any water in that ditch at [38] the time I did the plowing.

Q. Did you then or shortly thereafter observe

(Testimony of Theodore Matherly.)

Q. Yes; and hadn't been at any time during that year? That is correct, is it not? It wasn't irrigating season yet, was it?

A. Well, now, I just couldn't answer that. I don't know.

Q. But you saw no water in the ditch whatsoever, did you?

A. I wasn't up on the ditch bank.

Q. And how far from the ditch bank was this that you did this plowing?

A. Oh, probably three or four hundred yards.

Q. And in that vicinity the land slopes?

A. Yes, it is quite steep.

Q. Yes, and all through that territory, clear on down; that is correct; is it not?

A. That is correct.

Q. Quite a slope. How big were the soft spots that you talk about?

A. Well, some of them was quite big.

Q. How big?

A. I didn't measure them, but I would get my outfit stuck, anyway.

Q. Well, would you say they were two or four feet across them, or——

A. Well, I would say in there in the field I would probably have to skip probably an acre and a half of ground, just in [39] spots.

Q. How big was that field?

A. Well, now, I couldn't answer that question. I don't know.

(Testimony of Theodore Matherly.)

Q. Could you plow between those spots, or did you plow between those?

A. No, we just would plow up to them and then turn around and go back.

Q. Well, you plowed that area around in there, didn't you? A. Well, I plowed what I could.

Q. Do you know what was planted in there after you plowed it? A. No, I don't.

Q. Were there any dry spots between the header ditch or between the toe of the canal there and down where you were plowing?

A. There was a header ditch, did you say?

Q. Yes, a header ditch, it was a header ditch there, or a gate.

A. I think there was a ditch, a small ditch, run down the south side of the end of the field, as I remember it, because I would get my tractor wheels in it once in a while, but the other side I don't know.

Q. The south side of the field, would you designate that, where you mean?

A. Well, the small ditch I speak of,—there is a fence line down through here, I believe,—it came down through a tile, a [40] small ditch, down in there (indicating).

Q. Would you mark that on the map?

A. But as far as up here (indicating), I don't know. That is a pretty big map to draw a ditch on, but it was along in here, someplace like that (indicating).

(Testimony of Theodore Matherly.)

Q. Well, where did it come from? Where did that ditch come from? A. I don't know.

Q. Mark it as a ditch. Mark it in there and put your initial on it as a ditch that was along there.

(The witness here placed a mark on the map and initialed same.)

Q. Now, will you locate the North Canal on that map.

A. Well, it is right up in here someplace (indicating).

Q. All right, mark it there, will you, where the North Canal is, according to your observation, on the map.

Mr. P. J. Gallagher: You mean the North Canal, now, the main canal?

Mr. Hess: That is the main canal, yes.

A. You mean the main canal?

Q. Yes; mark what you would regard the main canal.

A. Is this the north side of this map (indicating)?

Q. You are the witness.

Mr. P. J. Gallagher: That is the west side.

A. That is the west side? Well, I am turned around, then, [41] on the map.

Q. (By Mr. Hess): All right, then, did you think the ditch was in a different place? This lateral or header ditch, where would you place it,

(Testimony of Theodore Matherly.)

now that you have your information from Mr. Gallagher?

Mr. P. J. Gallagher: No, just—I am sorry you are finicky about it, but I think the witness is confused. Now I wish you would first locate what you claim to be the main canal.

Q. (By Mr. Hess): Now, which direction does that ditch run there, now, that you have marked what you have said to be a ditch? Does that represent that line?

A. What? The main ditch?

Q. No, the header ditch.

A. The little ditch that he irrigates out of?

Q. Yes.

A. Well, this one here that I am referring to would run south.

Q. Would run south? A. Yes.

Q. And he irrigates from that, does he?

A. I don't know what he irrigates. I don't know whether he irrigates this piece of ground from that ditch or some land down below.

Q. Yes, he could irrigate that land from it, could he not, and some land down below? [42]

A. I don't know what he would irrigate from it.

Q. What is that writing that you put up there?

A. That is the North Canal.

Q. Now, where did you do your plowing?

A. Right in here (indicating).

Q. Right where you first wrote it in, is that right?

(Testimony of Theodore Matherly.)

A. I don't know whether that is the exact spot or not, but it was right in there (indicating).

Q. And how far was that spot from the North Canal?

A. Well, there's buildings up in there. I don't know whether it run clear down to the buildings, or just what that is.

Q. Could you make an estimate?

A. No, I couldn't.

Q. A hundred feet, two hundred feet, or three hundred feet?

A. Well, it is farther than that, but I don't know how far.

Q. Could those soft spots come from rain or snow?

A. Well, I wouldn't think on that steep ground that snow water or rain water would stand there at that spot.

Q. And of course you don't know whether there had been any water whatsoever in the North Canal that year up to that time or not?

A. No, I don't.

Mr. Hess: That is all.

Mr. P. J. Gallagher: That is all.

(Witness excused.) [43]

Mr. P. J. Gallagher: Call Mr. Hawkins.

ARTHUR C. HAWKINS

was thereupon produced as a witness in behalf of the plaintiffs herein and was examined and testified as follows:

The Clerk: Will you state your name, please?

A. Arthur C. Hawkins.

(The witness was thereupon duly sworn.)

Direct Examination

By Mr. P. J. Gallagher:

Q. Where do you live, Mr. Hawkins?

A. I now live out toward Adrian, west of the northernmost corner.

Q. In Malheur County? A. Yes.

Q. Are you familiar with the area around the break in the North Canal that occurred in 1946? Were you familiar with that territory surrounding that break? A. Yes, some.

Q. Where were you staying or living at the time the break occurred?

A. I was living on the Ben Shaw farm, that farm where the break occurred.

Q. And how far from the break was the house located that you were living in? [44]

A. Oh, I would judge a quarter of a mile, probably a little better.

Q. Were you there at any time before the break, so as to observe the nature of the soil around below the break?

A. Yes, I was there. I noticed—it was quite

(Testimony of Arthur C. Hawkins.)

noticeable, the alkaline formation all underneath the canal there.

Q. Now, we have drawn a little map and call it Exhibit No. 82. That is pinned up on that black-board there. I wish you would just take a look at it and see if you recognize that area?

A. Well, I am kind of dumb, only on maps that I draw myself.

The Court: Well, now, since there has been some question raised about this, wouldn't it be better for a map to show what the directions are?

Mr. P. J. Gallagher: Yes, I think it would, your Honor. It would make it easier for the witnesses to follow, I think.

The Court: It would make it easier for me to follow.

Mr. P. J. Gallagher: Will you just take a chair and I will call the engineer back.

Mr. P. J. Gallagher (To Mr. Paul Bronken): Will you indicate on the map, Paul, the directions on the map.

Mr. Paul Bronken: The direction of flow is in that direction (indicating).

Mr. P. J. Gallagher: What direction is it? Straight north, or what? [45]

Mr. Paul Bronken: For all practical purposes it would be north.

Mr. P. J. Gallagher: Now, while you are up there, will you draw the main canal on there as you observed it.

Mr. Paul Bronken: This is on the map here.

(Testimony of Arthur C. Hawkins.)

Mr. P. J. Gallagher: Oh, I see. Now, will you indicate the other points of the compass also, Mr. Bronken.

(Mr. Paul Bronken here marked Plaintiffs' Exhibit 82 as directed by counsel for plaintiffs).

Q. (By Mr. P. J. Gallagher): Now, Mr. Hawkins, will you take another look at it and orient yourself by what is marked up there as the North Canal, where the arrow is on the top of the map?

A. Well, to me that there would be west, the way that piece of land lays.

Q. No, unfortunately, that is——

A. But, as I just said, I am mixed up on this map. I can't quite determine here north——

Q. The ditch, Archie, is on the upper side of the map there.

A. Yes, up here (indicating).

Q. Yes; and that is on the west side of the farm?

A. Yes, that is right.

Q. Now, then, with that information, with that in mind, where is the area that you noticed as wet? [46]

A. Well, this is the canal up here (indicating). Immediately underneath this canal for, oh, for quite an area here (indicating).

Q. How close up to the bank of the canal?

A. Well, underneath the canal there is a lateral or feed ditch that runs down and runs south, and underneath that feed ditch is where it was wet. I happened to plow up there, too, that same—in '46,

(Testimony of Arthur C. Hawkins.)

I think it was. I had a crawler tractor and I plowed up there and I got stuck also.

Q. How big is that feed ditch and what is its purpose?

A. It is to carry water to the lower end of the place and also to water that land underneath the map (sic).

Q. Is that feed ditch to pick up any water that may have leaked from the canal?

Mr. Hess: We object to that as assuming and speculating.

Mr. P. J. Gallagher: I will withdraw that.

The Court: If he can answer, that is all right.

Q. (By Mr. P. J. Gallagher): Do you know whether or not any water that seeps from that main canal would be picked up by that feed ditch?

A. Ordinarily it would not.

Q. Now, how far from the bank of the canal, the lower bank of the canal, were you attempting to plow?

A. Well, I plowed that piece of land from the house up to the—as far as I could up to the canal, up to, I would say, [47] about three or four hundred feet, when the canal was dry. I had my trouble below the canal, east of the canal.

Q. On what area of ground there did you have trouble with your plow?

A. Well, approximately this area that lays east of this ditch, this feed ditch, that runs down through the place.

Q. Would it be an acre or two acres?

(Testimony of Arthur C. Hawkins.)

A. Well, there was more than that, I think.

Q. More than an acre?

A. Yes, I imagine there was. I would imagine there was three acres, I would say.

Q. What time in the year were you trying to plow?

A. Well, it was a little bit late that year. I don't just remember the date.

Q. Do you remember whether or not the water was in the canal?

A. No, it hadn't been in the canal.

Q. It was before the irrigation season started?

A. Yes, that is right.

Q. And how wet was it in relation to whether you could plow or not?

A. Well, I had a crawler tractor and of course that wouldn't get stuck, but one wheel of my plow would get down so I would get stalled. It would hit the bottom of the furrow and drop down.

Q. Was it muddy? [48]

A. Yes, it was very muddy.

Q. Were you able to plow some of that area or not in there?

A. I couldn't plow some of that next to the ditch. It was too muddy.

Q. That, you think, was in the spring of 1946?

Mr. Hess: We object to this question as assuming and suggesting, your Honor.

The Court: I think that was suggestive. What year was it?

A. '46.

(Testimony of Arthur C. Hawkins.)

Q. (By Mr. P. J. Gallagher): '46. Then were you back there at all after that and observe them cutting any hay crops off?

A. Yes, they had trouble getting the hay crop off.

Q. What do you know about that, Mr. Hawkins?

A. Well, I know that they had to carry it off with pitchforks instead of getting their machinery on there.

Q. Were you there when they were attempting to hay? A. Yes.

Q. And who was trying to farm it that year?

A. Mr. Shaw was farming it himself.

Q. And were you helping him there?

A. No; I was living on the farm, and Mr. Turner was working for me, and also my son, and he used them to help.

Q. Do you know how he cut the hay for that area? A. A team of horses. [49]

Q. And then these other boys were trying to help him get the hay off? A. That is right.

Q. What have you to say about the area of the land laying up near the ditch that may have been—
(At this point the electric lights in the courtroom were extinguished.)

The Court: Court will recess.

(Short recess.)

Mr. P. J. Gallagher: Mr. Reporter, will you read the last question and answer, please.

(The last question and the answer thereto

(Testimony of Arthur C. Hawkins.)

and the uncompleted question following said answer were thereupon read by the Reporter.)

Q. (By Mr. P. J. Gallagher): What have you to say about the area of the land lying up near the ditch having been waterlogged or wet?

The Court: Well, Mr. Gallagher, I am going to strike that question. You have a way of suggesting to the witness what you would like to have him testify to.

Mr. P. J. Gallagher: Yes, I am sorry about that, your Honor.

Q. Did you observe the land that lay up under the canal on that Shaw ranch there, Hr. Hawkins, as to whether there was any water or seepage there?

A. There was seepage, there, yes. [50]

Q. Now, that was what year that you are now testifying to, Mr. Hawkins?

A. Well, we are talking about the year '46.

Q. The year '46.

A. The year that they were haying. I was mistaken in the year that I did that plowing. That was in '45. I would like to correct that.

Q. You want to correct your statement as to the year that you did the plowing?

A. As to the year I did the plowing, yes. I was living on the ranch adjoining in '45 and that is the year I did the plowing.

Q. And could you tell again—I have forgotten the time of the year that you did the plowing. Was that before the start of the irrigating season or after they had begun irrigating?

(Testimony of Arthur C. Hawkins.)

A. Yes, it was getting quite dry that spring. It was before irrigation.

Q. Now, were you there in that vicinity at the time the break occurred, Mr. Hawkins?

A. Yes.

Q. As I understand your testimony, you were living on this Shaw place? A. Yes.

Q. In the Shaw house?

A. That is right. [51]

Q. Which break did you observe, the first or the second break?

A. We had been up to the Payette Lakes and we observed the break when we were coming home, we could see the water coming over the banks and down the gulch, we could see the people down there.

Q. Did you go up there immediately, up to it?

A. That is right.

Q. How many Caterpillars or implements were they using to repair the breaks when you got there?

A. Well, at first there wasn't none there yet. They started that night, I believe. That night of the break I believe the Government had their machine in there, some time in the night.

Q. Did you observe a Caterpillar bogged down or stuck in the mud there at that time?

A. Not at that particular time. It was the second break.

Q. How many days afterwards?

A. I couldn't say exactly.

Q. But it was on the occasion of the second break? A. Yes.

(Testimony of Arthur C. Hawkins.)

Q. And where was the Caterpillar, what area of the tract shown on Exhibit No. 82, if that is where the Caterpillar bogged down? What part of that tract was the Caterpillar bogged down on?

A. It was on the south side of the wash, right east, underneath [52] the break.

Q. Do you think you know enough about that map now so you could go up there and write the word "Caterpillar" or "Cat"?

A. Well, if you would let me mark it up I could, yes.

Q. Beg your pardon?

A. I say if you would let me mark the map up I could, yes.

Q. Don't mark it up any more than you have to, but write out the word "Cat." Now, for your information there, the engineer has marked——

Mr. Hess: Just a minute. The map shows for itself.

The Court: Well, yes. If he doesn't understand the map, then he can't do it.

Q. (By Mr. P. J. Gallagher): Do you understand where the ditch is located on the map, Mr. Hawkins?

A. Yes; this is the North ditch. This is the canal. This is the canal right here (indicating). Say, for instance, the break was right here (indicating), —I don't know whether it was; it could be over here or could be there (indicating)—but say, for instance, this was the break, the wash came down through the field this way. Right here the Cater-

(Testimony of Arthur C. Hawkins.)

pillar was stuck, right underneath that tree, just underneath that tree that stands there yet, I guess—I don't know.

Q. Will you write the word "Cat" there?

(The witness here marked on Plaintiffs' Exhibit 82 as directed by counsel.) [53]

Q. Now, was that stuck in the location where the land had been wetted up from the flood or otherwise?

Mr. Hess: Well, I object to that, if he didn't see it, what caused it being wet.

The Court: Objection sustained.

Mr. P. J. Gallagher: Yes, I know it was leading.

Q. Sit down again, Mr. Hawkins. Was the Caterpillar stuck in any area that had been wet by water running away from the canal out of the break?

A. I would say it had.

Q. You would think that the land that the Caterpillar was stuck in had been wet by the water coming out of the break? A. I think so.

Q. How far south of that wash was the Caterpillar stuck?

The Court: That testimony can't remain in the record unless he tells what the conditions were, what he observed, but you are asking conditions that made him think that.

Mr. P. J. Gallagher: How far back do you want to strike it out?

The Court: Well, if you can further qualify him, let him tell what the conditions were around the Caterpillar at the time it was stuck.

Q. (By Mr. P. J. Gallagher): Mr. Hawkins,

(Testimony of Arthur C. Hawkins.)

from the observations that you made there, could you tell how far south the water had made a wash there that ran out of the canal as a result of [54] the break? Do you understand that?

A. Not exactly, no, I don't.

Q. You say you don't understand it?

A. I don't understand it.

Q. Could you see the result of the water running from the canal? Was there a ditch or wash cut by that water?

A. This particular place where the cat was stuck, the water at the beginning of the wash had flowed over the bank and wet this ground, and this Caterpillar was stuck back—Well, it was a good ten feet from the bank of the wash, where the water had went down the wash, over the front end of the cat—probably be further; I don't know. I didn't just particularly pay any attention to it. The only thing that I paid attention to was the cat was stuck there, and after we had pulled the thing out I said to the boys——

Mr. Hess: Object to what he said.

The Court: Yes. Don't tell what you said.

A. I see. Well, this thing, anyway, was stuck in the mud.

Q. (By Mr. P. J. Gallagher): How did you get the cat out?

A. We took Mr. Clowers' International truck and pulled it out with a winch, with the help of Mr. Terhune running his Caterpillar.

(Testimony of Arthur C. Hawkins.)

Q. And that was, as I recall, about ten feet south of the wash?

A. From the side of the wash. [55]

Q. And which way did you pull it out, what direction?

A. We just pulled it south from where it was stuck, right back south.

Q. Then it would get going under its own power after that? A. Yes, it did.

Q. Now, when you got down there after the first break was the water still running down this wash? Do you know what time of day it was when you got down there?

A. Between five and six o'clock, I think it was. I couldn't say for sure the exact hour.

Q. Well, how long did you stay in the immediate vicinity of the break?

A. Well, we stayed there until almost dark.

Q. What were they doing there towards repairing it?

A. Well, they hadn't done nothing yet at the time of the first break.

Q. Did you stay there until they repaired the first break, then? A. No, I was working.

Q. Did you go back there again after they had the break partially repaired? A. Yes.

Q. I am speaking now of the second break. Where were you the evening when the second break occurred?

A. We had just arrived home from our work.

(Testimony of Arthur C. Hawkins.)

Q. By "home" you mean the Shaw house?

A. Yes, that is right.

Q. Just tell the Court, in your own language, about what you observed about the water and what happened at the time the second break occurred, giving the hours of the day, as near as you can, Mr. Hawkins?

A. Well, we had just arrived home, between six and seven o'clock, or I would say about—I wouldn't say exactly, but we had come home from our work and I imagine it was between six and seven o'clock, we were just starting out, and we heard a noise, looked out, and someone said, "There water comes over the canal again," and we started to run; we run up there as fast as we could.

Q. What was the condition that you found, when you got there, as to the water?

A. The water was running full length over the fill that they had put in.

Q. And over how long an area?

A. Approximately fifty feet, fifty or sixty feet.

Q. In other words, they had got fifty or sixty feet of canal built and the water was running over that bank?

A. It was all on a level, as near as I remember.

Q. You mean the water and the bank?

A. Yes, and the water was coming directly over the bank.

Q. How high, if you know, was the new bank built up to, or [57] could you tell?

A. Couldn't tell exactly.

(Testimony of Arthur C. Hawkins.)

Q. Well, how long did you stay there?

A. Oh, approximately an hour and a half.

Q. And did the water continue to run over the new fill while you were there?

A. That is right.

Q. Was it still running over when you left?

A. Yes.

Q. And about what hour would you say that you left there that evening? A. Nearly dark.

Q. When did you learn that the ditch broke again? When did you first learn that?

A. The second time?

Q. Yes, the second time?

A. Well, that was between six and seven o'clock when we had arrived home and saw it coming over the bank.

Q. Oh. But it was still running over——

A. It was still running over yet at dark.

Q. Do you know when the bank cut out entirely?

A. No, I don't.

Q. Did you go back there the next morning?

A. Yes.

Q. And what did you find then as to the condition of the bank, [58] Mr. Hawkins?

A. It had all gone again.

Q. Was the water shut off or still running out of the hole in the canal?

A. It was running some. Not very much. Just a small trickle of stream.

Q. And running from which direction, the south or the north?

(Testimony of Arthur C. Hawkins.)

A. Running from the south.

Q. What hour would you say you were back the next morning?

A. Before we went to work. I don't remember. It was pretty early.

Q. How wide a gap was there in the bank of the canal there after it broke the second time, Mr. Hawkins?

A. Well, I couldn't just exactly say.

Q. And what do you say as to the location of that gap and break in connection with the gap made by the first break?

A. I would say it was identically the same place.

Q. You were doing some work in some other part of the country?

A. That is right, land leveling.

Q. Did you stay around and assist at all, or were you employed to do any of the work in the repair of the ditch? A. No, none whatever.

Q. Mr. Hawkins, do you remember whom you saw, if anyone, at the ditch break when you first saw the water running over that evening? Who was there? [59]

A. I saw Mr. Terhune and Mr. Clowers and an engineer that was there; I don't know what his name was.

Q. Mr. Terhune was the man that had the cat stuck? A. Yes, he had the D-8.

Q. And Mr. Clowers, was he another cat man?

A. Yes, he was another man that had a cat.

(Testimony of Arthur C. Hawkins.)

Mr. P. J. Gallagher: Grant, will you stand up?

(A gentleman in the audience arose to his feet.)

Q. Do you recognize this young man as being the engineer?

A. Well, it seems like his face is familiar.

Q. Were there any other people there that you remember of? A. That is all.

Q. Did you see the canal above the break, so as to determine or estimate the amount of water that was flowing in the canal?

A. Well, there was a big head of water.

Mr. Veeder: I object, your Honor. There is no specification as to the time when water was flowing in the canal, nor has he been qualified to testify as an expert as to what water would be flowing in the canal.

The Court: Well, he is asking for his observation.

Mr. Veeder: He hasn't specified the time.

The Court: Well, I know, but you can cross-examine about that if you want to know about that further.

Q. (By Mr. P. J. Gallagher): I am speaking of the time, of the occasion, when you went up after the first break and you [60] saw the water coming over, just prior to the first break——

The Court: Just prior to when?

Mr. P. J. Gallagher: Just prior to the second break.

The Court: That was not what you said first.

(Testimony of Arthur C. Hawkins.)

Mr. P. J. Gallagher: No, I understand.

Q. Is it quite clear in your mind as to what time I am asking you about?

A. Well, I wasn't up there before the break. It was after the break when I was there. It had to be between seven or eight, and I stated that I was there from between six and seven and I stayed there until about eight, or until about dark, and there was quite a considerable head of water coming.

Q. Had you seen that ditch when it was running normally full? A. Yes.

Q. What have you to say as to the amount of water that was coming when the break opened, as to a normal ditch flow?

A. Well, my judgment would be that it was half full.

Q. And it was running out over the bank?

A. That is right.

Q. How deep was it running over the bank?

A. I would say seven or eight inches, probably a foot, because when he drove his cat across there it was quite a ways up on the tracks, and the load of dirt had no effect on it at all, so it had to be a pretty big stream.

Q. Who was driving the cats across there? [61]

A. Mr. Clowers. He was driving the only cat that was operating there.

Q. And where was the other cat?

A. The other cat was stuck.

(Testimony of Arthur C. Hawkins.)

Q. You spoke about Mr. Clowers operating his cat there. How did he operate over the area that the water was running over the bank? Did he run it clear across that area?

A. He did. After they couldn't head it off there, why, he was 'dozing from the—He was 'dozing on the north side of the break. It seemed to have no effect on the flow of water, so then he crossed over in the water, on top of the bank, and went up and tried to 'doze in the cofferdam that had been taken out by that heavy stream of water.

Q. Where was this little cofferdam located with relation to the break? Was it above or below?

A. Above the break.

Q. And did you say that he went on up then and tried to head off the water——

A. Tried to head off the water then by 'dozing in the cofferdam.

Q. And was he able to stop the flow of water then by doing that? A. None whatever.

Q. You left there about dark?

A. Some time about dark; I don't just remember. [62]

Q. And I understand from your testimony that the water was flowing over the bank at the time you left? A. That is right.

Mr. P. J. Gallagher: I think that is all from this witness.

(Testimony of Arthur C. Hawkins.)

Cross-Examination

By Mr. Hess:

Q. Where did you say you now live, Mr. Hawkins?

A. I live out on the Adrian—on the road to the dam, west of Langdon's Corner.

Q. How long have you lived out there?

A. I lived there a year last December.

Q. You say you were living at one of the Shaw houses, about a mile from where this break occurred?

A. About a quarter of a mile.

Q. About a quarter of a mile from where the break occurred. During what year?

A. The year of '46.

Q. Where were you living during the year '45?

A. I was living adjoining Mr. Shaw's place on the north.

Q. How far from the place of the break?

A. Well, it was across 160 acres—160 acres and 80 acres, so that would be about a mile and—about a mile, I guess.

Q. About a mile?

A. Approximately. [63]

Q. All right. Now, would you step down, just a minute, and place this ditch that you spoke about? That was down near the toe of the south bank of the North Canal, across this wet place that you speak about. Will you draw that ditch, that lateral, in the direction in which it flows.

A. Well, supposing that this is going north,

(Testimony of Arthur C. Hawkins.)

this is the canal here—This little lateral comes down, heads up here, and flows south (indicating).

Q. Will you mark it, please. Will you mark that about the way it goes. Just draw it right down through there.

A. (Witness here marked upon Plaintiffs' Exhibit 82). That is as near as I can remember. I may have it off a little.

Q. I see. And would you mark that lateral ditch, please, lateral ditch right along your line.

(The witness here placed a further mark on said exhibit.)

Q. All right. Now, then, how large a ditch is that, Mr. Hawkins?

A. Well, it isn't a very large ditch. It is a rather small ditch, probably two feet across it, a foot and a half, or three feet—just a small irrigation ditch for a small stream.

Q. I see. Then you may be seated. And how far would you say that is from the lower edge of the south bank of the North Canal?

A. Let me see—Let me get that question, please.

Mr. Hess: Would you read it, Mr. Reporter, please.

The Court: Read it.

(Pending question read.)

Q. (By Mr. Hess): That is the east bank, rather, the east bank of the North Canal—That is the bank downstream.

(Testimony of Arthur C. Hawkins.)

A. Oh, the lower ditch bank from the other bank?

Q. Yes. A. It is very near up against it.

Q. Now, then, from your testimony, you say you did some plowing in 1945 before there was any water in either one of those ditches?

A. That is right.

Q. Either the lateral or the North Canal. And how far was that plowing easterly from the lateral ditch?

A. I would say some two or three hundred feet, three or four hundred feet, down the canal, down the bank from the bottom of this ditch, where I quit plowing.

Q. Was the land farmed clear up to this lateral ditch, or did it start in someplace below it?

A. He started it from where I quit plowing.

Q. That isn't the question I asked.

A. Pardon me.

Q. I asked the question if the land was farmed immediately below the commencement and below the lateral ditch.

The Court: Well, I don't understand that myself. [65]

Mr. Hess: Well, I will ask it that way, then, your Honor. I will ask the question the way I am asking it now:

Q. Was this land farmed clear up to the lateral ditch? A. Most of it, yes.

(Testimony of Arthur C. Hawkins.)

Q. How far up to the lateral ditch, or how close to the lateral ditch, would it be farmed?

A. Well, I just didn't pay any attention to that.

Q. What kind of a crop had there been in that you were plowing up? A. Alfalfa.

Q. You were plowing an old alfalfa crop up, were you? A. Yes.

Q. And you said, as I understand, that there was no way to observe that water on the top of the land above the lateral ditch and between there and the bank of the North Canal.

A. I said it was an alkaline surface there.

Q. But there was no indication of water there?

A. No, not at that particular time, no.

Q. And that land slopes quite rapidly does it not, from the easterly toe of that North Canal clear down through the Shaw place, does it not?

A. That is right.

Q. Where there would be, if there was any seepage, a rapid runoff? A. Not necessarily. [66]

Q. But, in any event, it is quite a slope?

A. Yes.

Q. In percentage of slope would you know how to estimate it?

A. I would say a thirty—thirty-degree.

Q. And how far a distance from the toe of the bank of the canal, or bottom of the bank of the canal?

A. Oh, I couldn't answer that very good.

Q. Well, would you make an estimation, please?

A. Probably two—two or three—That is pretty

(Testimony of Arthur C. Hawkins.)

steep. I don't know,—two or three hundred feet, three or four hundred feet.

Q. And how much of a slope would it be where you were plowing?

A. Well, that slopes pretty gradually, I believe, if I remember correctly.

Q. Pretty gradually, but it was a slope?

A. Yes.

Q. That sloped generally toward the east?

A. Toward the east.

Q. Towards Snake River? A. Yes, sir.

Q. Now, then, what year were they having trouble with the crop that you are talking about?

A. The year '46 that we lived there.

Q. You were living in this same Shaw house at that time? A. That is right. [67]

Q. And during what period of the year were you living there?

A. Well, we lived there some time in February, if my memory serves me right, we lived there until about December.

Q. That is February of '46?

A. That is right.

Q. And lived there until December of that year?

A. Somewhere in there.

Q. Where were you working during that period of time? A. Working all over the country.

Q. What were you doing?

A. Construction work, land leveling, land developing.

(Testimony of Arthur C. Hawkins.)

Q. Well, what do you mean by "all over the country"?

A. Well, working for different farmers that wanted leveling done and land development.

Q. You were not farming any of this land here around the Shaw place? A. No, sir.

Q. Or around in the vicinity fo the break?

A. No, not that year, but the year before I worked east of there.

Q. And how often would you be home at this Shaw house? A. Every night.

Q. Every night during the entire year?

A. No, not the entire year, because I didn't live there the entire year. [68]

Q. Well, the time that you were living there, from February to December? A. Yes, sir.

Q. You were there every night?

A. Yes, sir.

Q. What time would you get home at night?

A. Well, ordinarily it would be all the way from five o'clock until twelve o'clock.

Q. At night? A. Yes.

Q. And what time did you leave in the morning for your work?

A. Real early; sometimes daylight, and sometimes seven o'clock. Just depended on where we were going and where we went.

Q. What kind of an outfit were you working with, Mr. Hawkins?

A. HD-10 crawler tractor.

Q. You operated your own tractor, did you?

(Testimony of Arthur C. Hawkins.)

A. Yes.

Q. And I presume you left that tractor where you would quit your work at night?

A. Yes, sir.

Q. And drive in with your car and drive out to your tractor the next morning?

A. That is right.

Q. And then, getting back to the question of the crop, what kind of a crop was there in on this land in 1946? [69]

A. Hay.

Q. What kind of hay? A. It was alfalfa.

Q. You are certain it was alfalfa there in '46?

A. Well, I am quite sure. It might have been clover, but I didn't pay too much attention to it.

Q. Did you have anything to do with the haying of it? A. No, sir.

Q. How many acres of it was there?

A. There was—I don't know for sure how many acres. I think there were somewhere around eighteen or nineteen acres. I wouldn't say for sure.

Q. That is, in the whole patch? A. Yes.

Q. Now, then, you say there was some trouble out there in this haying season?

A. That is right. I heard the boys talking about it and I noticed they were having trouble getting it out.

Q. You never saw that?

A. Yes, I saw it, too.

Q. What did you see?

A. I saw that the hay was getting yellow, the alfalfa was getting yellow, before it was cut, even.

(Testimony of Arthur C. Hawkins.)

Q. How much of it?

A. There was about three or four acres there, approximately. [70] I wouldn't say for sure.

Q. Now, where this break occurred that you are talking about, that isn't in any draw at all, is it? It is kind of on the crest of a little ridge that goes down through that territory, is it not, pretty much to the center of that ridge?

A. Well, now, I wouldn't just like to answer that. I just don't remember.

Q. There isn't any draw there at all, is there, where that break occurred and where that water flowed down through there? There may be a draw to the north of it or to the south of it, but——

Mr. Lytle: We object, your Honor, as argumentative. The witness has already disclosed an answer.

Mr. Hess: This is cross-examination.

The Court: Now, just a minute. If there is objection made, allow me to rule. I will rule. You don't have to worry about that. The objection is overruled. This is proper cross-examination.

Mr. Hess: Would you read the question, please.

The Court: Read the question.

(Pending question read.)

Q. (By Mr. Hess): Will you answer the question? A. I don't believe I could.

Q. Well, you didn't really observe that condition there [71] closely at all? You had no reason or occasion to, did you, Mr. Hawkins?

A. Not in particular, no.

(Testimony of Arthur C. Hawkins.)

Q. You were interested in your own work and were just interested in going up there and seeing what the thing looked like, and that is all there was to it, when the break occurred? That is right, isn't it?

A. I was interested in what was going on, yes. I thought I might learn something when I went up there.

Q. Now, then, that cat that you speak about being stuck in the mud there, as you state, that was pulled out by an International truck, is that correct? A. That is right, with a winch on it.

Q. That truck was up there for the purpose of working in connection with that break, was it not?

A. Yes; it was hauling fuel there, no doubt.

Q. From a stock pile, and things of that nature, if you know?

A. Well, I would say not. I would say it was there for a service truck for the Caterpillar tractors.

Q. And for work in connection with the break?

A. Yes.

Q. Now, then, was that between five and six o'clock at night?

A. I would say between six and seven, I believe I stated.

Q. Between six and seven you think that was. And you were there how long that time? [72]

A. That was the time of the second break. We were there——

Q. No, I am not talking about that——

(Testimony of Arthur C. Hawkins.)

A. That is when the tractor was stuck, yes.

Q. Oh, I see. Between six and seven o'clock, then, in the evening there had been some water that had come over this embankment, and that is what you went up there to see, is that right?

A. That is right.

Q. That is, that they had been putting in? There had been some water there? A. Yes.

Q. Now, how long did you say you stayed there? You think a half an hour?

A. No, I think longer than that. I think we stayed until about dark.

Q. Who was there?

A. Mr. Terhune and another son and I.

Q. And did you help there?

A. We took the International truck and started it up and put it onto the tractor and helped pull it out.

Q. And that was during that period of time?

A. That is right.

Q. And you think the engineer, Mr. Gordon, was there; and Mr. Terhune, you say?

A. That is right. [73]

Q. And Mr. Powers?

Mr. P. J. Gallagher: Clowers.

Q. (By Mr. Hess): Mr. Clowers?

A. Yes.

Q. Anyone else?

A. Not that I remember of.

Q. Who was it that was handling the tractor, do you remember? A. Mr. Terhune.

(Testimony of Arthur C. Hawkins.)

Q. Mr. Terhune.

A. Always runs his own tractor.

Q. And you think the ditch at that time was about carrying a half of what it ordinarily carried, half full? A. That would be my judgment.

Q. I see. And you say there was a cofferdam above, upstream from the break? There had been a dam put across there? A. Yes.

Q. Now, that we get this picture clear, this cat that was working there, what did it try to do?

A. Mr. Clowers was trying to 'doze the dirt from the north end of the break into this stream of water that was coming over the bank, to head it off, to dam it off.

Q. What did they do at the cofferdam?

A. The water washed it out completely.

Q. I see; the water cut that out? A. Yes.

Q. Now, then, was the water that—Well, when you left that evening the water was still going over the top of this part of a fill that they had already put in where the first break had gone out?

A. Yes, sir.

Q. That was what you last saw that night?

A. Yes, sir.

Q. Now, then, as a matter of fact, do you know whether or not you were back there that next morning at all? A. Yes, we went up—

Q. That very next morning?

A. Yes; we went up there some time—I don't know just for sure what time, but we were up there before we went to work.

(Testimony of Arthur C. Hawkins.)

Q. Who went up there? Who went up there?

A. Well, I and one of my sons.

Q. What time in the morning did you go up there?

A. Well, it was before we went to work.

Q. Well, what time did you go to work?

A. I couldn't say exactly.

Q. Well, could you give us a guess?

A. It was at a time of year when we weren't very busy, so we weren't in any big hurry to get to work.

Q. Well, what time would you say?

A. Seven o'clock.

Q. In the morning? [75] A. Yes.

Q. And between six and seven o'clock in the morning, when you were there, how much of a body of water was coming down?

A. I just don't remember. My memory doesn't serve me.

Q. The top was all washed out?

A. Yes, sir.

Q. You are certain of that? A. Yes, sir.

Mr. Hess: That is all.

Redirect Examination

By Mr. P. J. Gallagher:

Q. Now, just a minute, Mr. Hawkins. Now, the activity that Mr. Clowers was engaged in, as I understand, he was trying to move dirt in from the north side of the canal to stop the flow of the

(Testimony of Arthur C. Hawkins.)

water over the new bank? A. Yes, sir.

Q. And then did he go from that point of that observation up to try to strengthen this cofferdam?

A. Yes, sir.

Q. And how long would you say he was trying to put in the cofferdam to stop the flow?

A. Well, when we left he was still working there at that particular spot.

Q. At the cofferdam? A. Yes, sir. [76]

Q. And was he still working on the cofferdam when you left? A. Yes, sir.

Q. Had Terhune got his cat out and got it operating at the time you were there?

A. No; he had got it out, but was operating—He was instructed to 'doze part of the canal bank off to make him a road up on top.

Q. Was he moving any dirt at all when you left there?

A. Well, he was trying the best he could to get up on top. He had a very difficult proposition.

Q. So that he wasn't doing any 'dozing when you were there?

A. Not trying to stop the break. He was 'dozing, trying to get a road up on top.

Mr. P. J. Gallagher: I think that is all.

Recross-Examination

By Mr. Hess:

Q. Just one question that I overlooked on cross-examination. How far would you estimate that it was from the lateral ditch that flowed under-

(Testimony of Arthur C. Hawkins.)

neath the downstream bank of that North Canal to where this crop was that you were cutting? How far below in distance?

A. Well, let's see—I just don't remember. I imagine that a rough estimate would be a couple of hundred feet, anyway a hundred feet.

Q. That is, the upper edge? [77]

A. Yes. I never tried to come down to the distance.

Q. That would be the upper edge of the field where they had this alfalfa in that you were talking about?

A. Well, the whole strip was in alfalfa.

Q. That is what I am talking about.

A. Yes.

Q. That would be, the upper edge of that alfalfa field would be about two hundred feet from this ditch, this lateral ditch?

A. Yes.

Mr. Hess: That is all.

(Witness excused.)

Mr. P. J. Gallagher: Call Mr. Hust, George Hust. [78]

GEORGE HUST

was thereupon produced as a witness in behalf of the plaintiffs herein and was examined and testified as follows:

The Clerk: Will you spell your name, please.

A. (Spelling): H-u-s-t.

(The witness was thereupon duly sworn.)

Direct Examination

By Mr. P. J. Gallagher:

Q. Where do you live, Mr. Hust?

A. The first place south of the Ben Shaw place where the break occurred.

Q. And how long have you lived there?

A. I came there July 13th of 1944.

Q. And you have lived there ever since?

A. I have lived there ever since.

Q. Are you familiar with the location on the canal where the break took place?

A. Fairly familiar, yes.

Q. And are you familiar with the general outline of the Shaw ranch? A. Yes.

Q. And, as I understand it, that Shaw ranch lies below the point where the canal broke?

A. That is right.

Q. Did you ever have any experience in trying to irrigate or [79] helping Mr. Shaw irrigate his lands there?

A. I think I irrigated for him once, yes.

Q. And what year was that, please?

(Testimony of George Hust.)

A. I am pretty sure it was in '45.

Q. And what time of the year?

A. I couldn't say exactly what time of the year, but I was irrigating second cutting of hay.

Q. And would you tell how those ditches run and what you observed there as to there being any surface water that was not in any irrigation canal?

A. Well, I started up this ditch to turn the water down to irrigate this piece of alfalfa——

Q. Now, what ditch do you refer to, George?

A. The lateral ditch directly under the canal bank.

Q. Go ahead.

A. ——and I saw a little stream of water running down. Well, I stepped out of the ditch up on the bank and went on up and was going up the headgate—I presumed this water was coming from the headgate, and I got up a little ways and I saw my ditch dry again, so I stepped in the ditch and walked on up the ditch to the headgate.

Q. Did you find any ditch (sic) by that headgate? A. I did.

Q. Where was that?

A. Oh, I would say it was about three or three hundred and [80] fifty yards or so north of where the break occurred.

Q. Now, as I understand your testimony, there was part of that ditch that the water was flowing in and then you got above that water flow and the ditch was dry? A. That is right.

(Testimony of George Hust.)

Q. Could you tell where that water came from that was flowing in the ditch?

A. I couldn't tell exactly, no. I couldn't say where it was coming from. I could see where it came into the ditch but I couldn't see where it was coming from.

Q. And how far up the ditch from—Well, take it the other way: How far down from the headgate was the ditch dry until you ran into this water flow?

A. About, I would say, three hundred yards.

Q. And then how much water was flowing in the ditch below where the water came into the ditch?

A. I wouldn't attempt to estimate it, but there was enough so that it was flowing.

Q. Enough so that it was flowing? A. Yes.

Q. Did you observe the nature of the land around just immediately below the ditch, as to whether it appeared to be water-soaked or not?

A. Well, I didn't think it needed irrigating at the time.

Q. And how much of that area was in that condition? [81]

A. I didn't go down in the field. I followed the ditch along, and just what I could see right close to the ditch.

Q. Measuring it in—Take, for instance, the strip of land lying right immediately below that little ditch, how wide a strip would you say was in that condition?

A. Oh, I only looked down there once or twice.

(Testimony of George Hust.)

I would say maybe a hundred feet, something like that.

Q. Was that condition readily observable to you?

A. Well, yes.

Q. Have you been back there, or were you back there, after the break occurred, George?

A. Yes.

Q. And have you observed the place where the wash took place below the break and down across the field?

A. I did.

Q. And that is shown there, or attempted to be shown there, on Exhibit 82 that is on the board. Could you say whether or not this little ditch that had the water in—Could you locate the point where the water was in on that plat? Mr. Hawkins has tried to draw that little ditch up there. Would you agree with that location, and then see if you can determine about where the water was?

The Court: Well, let's see—Before he does that let's find out whether he understands and agrees with the map as it is drawn so far. [82]

Mr. P. J. Gallagher: Yes. George, look that map over. Archie Hawkins has tried to draw a little ditch up there. See if you can find that. It is right under that canal.

A. On this ditch that he has drawn?

Q. Yes. Have you looked at that now?

A. Yes.

Q. Now, can you locate about where the water was running in it?

The Court: Well, that lays no foundation to that.

(Testimony of George Hust.)

I want to know whether he thinks that is where the ditch was.

Q. (By Mr. P. J. Gallagher): George, does that location that Mr. Hawkins made coincide or agree with about the location that you were?

A. Yes, I would say that it was very close.

Q. How, then, will you show the Court about where you saw the water running in that little canal, little ditch?

A. Well, I would say approximately right almost where it broke.

Q. Right under the break, you think?

A. That is my opinion, yes.

Q. Now, put an "X" there and your own initials, George, "G.H."

(The witness thereupon marked on said exhibit as directed by counsel.)

Q. Now, then, how far south or down the ditch was that water [83] running?

A. Well, I first noticed wet dirt directly when I stepped into the ditch across my fence, and that would be about—well, about 200 yards or better below there, in the ditch; and I walked in the ditch——

Q. Will you point out approximately where you are talking about——

A. Well, right here (indicating ——This is——

Q. That line there is——

A. That is the boundary of the Shaw place?

(Testimony of George Hust.)

Q. No, that is the boundary of what you said was the wet area.

A. Oh, that is the boundary of the Shaw place (indicating)?

Q. Yes. A. My place is directly south.

Q. And when you came across the fence you stepped into your little ditch?

A. Came right into the ditch. It is right down the fence line.

Q. What was the condition there?

A. It wasn't entirely dry, but it was dry enough to walk in.

Q. And how far did you walk in the ditch before you struck running water?

A. Oh, I would say pretty close to a hundred yards. [84]

Q. Well, how far did the ditch run there?

A. You mean how far did water run in it?

Q. That is right, up to where you first discovered water?

A. Pretty close to a hundred yards there.

A. And then above that the ditch was dry?

A. That is right. It wasn't entirely dry. It was dry enough so you could walk in without getting your feet dirty.

Q. George, your place comes right down to the south line of the Shaw place?

A. That is right.

Q. And your north land would be how far south of where the break occurred?

(Testimony of George Hust.)

A. Oh, I would say about 200, possibly 250 feet.

Q. Feet? A. Or yards.

Q. Yards. Is there any place on your ranch in that immediate vicinity that you have described where there is seepage now from the ditch?

A. Well, there's several——

Mr. Hess: We object to that as incompetent, irrelevant and immaterial.

The Court: No.

Mr. Hess: He asked "now."

The Court: Well, you had better testify about it. I saw it this morning. We had better hear from it. [85]

Q. (By Mr. P. J. Gallagher): What was your answer, George?

A. Well, will you state the question?

Q. The Court Reporter will read it to you.

The Court: Read it to him.

(Pending question read.)

A. There is one place, I would designate it maybe about a hundred yards from my north fence, that has got a little stream running out of it.

Q. (By Mr. P. J. Gallagher): How long has that been running, George?

A. It was running there when I came on the place.

Q. That was the year what? A. '44.

Q. '44. Does it run all the year around?

A. No. No, about two weeks, approximately, after the water is turned in the canal it starts running. It runs about two weeks after it is turned in.

(Testimony of George Hust.)

Q. Are you acquainted with the officials that manage the ditch? The ditch rider?

A. I am acquainted with the ditch rider.

Q. Have any of those men been down to that seep with you and observed it?

Mr. Hess: Object to that as incompetent, irrelevant and immaterial.

The Court: Objection sustained. [86]

Q. (By Mr. P. J. Gallagher): Do you know who the ditch rider was there in 1945?

A. I do.

Q. Who was that? A. Tom Pettet.

Q. And '46? A. The same.

Q. '46 before the break occurred?

A. Yes, sir.

Q. Who was the ditch rider in '44?

A. Tom Pettet.

Q. Now, during the years of '44, '45 and '46, up before this break occurred, did Mr. Pettet come to this spot on your place there?

Mr. Hess: Object to that as incompetent, immaterial and irrelevant.

The Court: Well, I am inclined to think that the question of notice may enter into this.

Mr. P. J. Gallagher: That is what it is offered for, your Honor.

The Court: All right, he may answer.

A. I don't know if he ever came down to that break before it occurred. I never did—or that leak—I never did see him down before the break occurred.

(Testimony of George Hust.)

Q. (By Mr. P. J. Gallagher): Have they been back there since [87] that time?

A. They have.

Q. And do you know for what purpose or what they were doing there?

A. I only know that they put a weir in there to measure the flow of water that came down.

Q. Now, during '44 and '45 and the early part of '46, when that seep was running, was it running about the same as it is now?

A. No, it wasn't running near as much.

Q. Was it running enough so that a person had any trouble seeing it looking down from the bank?

A. Well, it was running a garden hose full of water.

Q. I didn't hear your last answer.

A. It was running a garden hose full of water. We had a garden hose stuck in there to take the flow of water away, and it would——

Q. Now, at the present time, it was running when we were out there, it was running a perceptible stream that you could see down there. How long has that continued?

A. That has run since the break occurred.

Q. Would you say it was running now more than it was when the break occurred?

A. Considerably more.

Q. Are there any leaks down on your place further south? [88]

A. There's three.

Q. And how far away from the point where this break occurred?

(Testimony of George Hust.)

A. Well, there is one on my south line, or almost on my south line, and another one about 300 yards north of it; then there is another one about, well, 400 yards north of that.

Q. Now, do they run as much water as this one near your north line? A. One of them does.

Q. And have the irrigation ditch riders measured those, also, from time to time?

A. I don't think so.

Q. Now, you spoke about one trip to the Shaw ranch, George. Did you make any other trips out there, where you observed the water conditions up near the canal? A. Not that I remember.

Mr. P. J. Gallagher: Not that you remember. You may cross-examine.

Cross-Examination

By Mr. Hess:

Q. I didn't get it where you lived, Mr. Hust.

A. The first place directly south of the Shaw place.

Q. You have lived there since July, '44, did you say? A. That is right.

Q. Where did you come from prior to that?

A. Bend, Oregon. [89]

Q. And that had been your first experience in this country, in 1944?

A. I was born and raised over around Weiser, Idaho.

Q. And how long did you reside at Bend?

(Testimony of George Hust.)

A. Approximately two years.

Q. What is your age, Mr. Hust?

A. Pardon?

Q. What is your age, please?

A. Thirty-one.

Q. Thirty-one. And you state you irrigated for Shaw in '45? A. Yes.

Q. For how long a period?

A. Well, I think it was either two or three days.

Q. Two or three days; and what kind of a crop were you irrigating? A. Alfalfa.

Q. How big a crop, how many acres?

A. I couldn't say. I would say there was, oh, probably five or six acres in the piece I was irrigating.

Q. Did you turn the water in this ditch, this lateral, to do that irrigating? A. I did.

Q. And you state that when you crossed the fence, over from your fence in a northerly direction and stepped in the ditch, that it was somewhat dry there? [90]

A. It wasn't dry. It was damp, but it wasn't what you would call really muddy.

Q. It was just damp? A. That is right.

Q. And how much further was it up where you got where you say that you couldn't say that it was running any amount but you could say that it was just running?

A. Oh, approximately a hundred feet—I walked up, I would say, 50 feet before it got too muddy to walk in, and then I walked up a little ways further

(Testimony of George Hust.)

before I could see down in the ditch—It was overgrown with weeds and stuff—before I could see down in the ditch and see the water.

Q. And then you went on above and it was still wet on up to the weir—or to the headgate?

A. No, it was damp.

Q. Damp all the way through there?

A. Yes.

Q. Clear up to the headgate?

A. That is right.

Q. Now, what time of year was this?

A. I couldn't say exactly, but it was the second crop of hay. I presume it was in July some time.

Q. You presume it was in July. Had water previously been turned down the lateral?

A. You mean before that year? [91]

Q. No, that year.

A. Yes, it certainly had.

Q. It what? A. It had.

Q. And they had been irrigating through the lateral prior to the time you assisted there?

A. That is right.

Q. How wide and deep is that lateral?

A. Oh, it varies. I should say it averages about two feet wide and maybe a foot, a foot and a half deep.

Q. But, as I understood you, that was the only observation you took of that? You didn't notice anything relative to the crop that would indicate any seepage, when you were irrigating?

A. Just a little below the ditch bank is all.

(Testimony of George Hust.)

Q. How close to the ditch bank, Mr. Hust?

A. Oh, in spots where the hay was thin you could see, maybe, down maybe ten or fifteen feet below the——

Q. Ten or fifteen feet. Did it just look wet, or what? A. It looked a little wet, yes.

Q. No other indication?

A. The hay was a little yellow.

Q. You state that you couldn't observe anything above the lateral ditch whatsoever, any dampness at all? A. Just indications of it.

Q. What do you mean by indications? [92]

A. Well, a heavy growth of Russian thistle and grass and weeds.

Q. You never noticed any dampness, however?

A. I couldn't see the ground.

Q. And from the top of the canal you couldn't have seen it at all? A. Just the growth is all.

Q. Now, ever since you have been there in 1944 you state that there is this little seepage that starts in there about two weeks after the water is turned into the North Canal?

A. Approximately two weeks, yes.

Q. And you say that that gets as heavy, sometimes during the summer months when the water is in the canal, as much as what a hose would carry off?

A. It did before the break, a hose would carry it off.

Q. What kind of hose?

(Testimony of George Hust.)

A. A regular little garden hose, a piece about, oh, approximately five feet long.

Q. But that would carry it off? A piece five feet long would carry it off?

A. It would carry it away, yes.

Q. And how far from the bank of the canal would that start to appear, how far from the lower edge of the bank of the canal?

A. About 30 feet, 35 feet, something like that.

Q. And the other two indications of just a seepage that you [93] observed there on your place, how far from the bank of the canal were they?

A. Which two?

Q. I think you described one north, didn't you, about a hundred yards north?

A. There was three leaks besides that.

Q. Three besides that? A. Yes.

Q. All right, how far from the bank of the canal were those other three?

A. Well, the one of them, the one in the middle of the place, is in a little draw and there is water seeps out underneath there, right underneath the bank of the canal, all the time when there is water in the canal; and those others are about, oh, between 40 and 50 feet from the lower bank of the canal.

Mr. Hess: That is all.

(Testimony of George Hust.)

Redirect Examination

By Mr. P. J. Gallagher:

Q. George, when you went up to irrigate on that occasion on the Shaw ranch, when you finally got up to the headgate was that open or closed?

A. Well, the headgate was open. He had a flow of water running out of the headgate, but running on a pasture running out north of there.

Q. Was this lateral closed off from that flow?

A. That is right.

Q. Now, when counsel asked you about the condition of the hay, you say that was a little yellow along there? A. Along the ditch, yes.

Q. And on the other side of the ditch you found a pretty rank growth of Russian thistles and grass?

A. A very rank growth.

Q. How high up on the canal bank was that growth discernible?

A. Oh, I would say a third of the way up, I would say, from the lateral up to the top.

Q. Measured in feet, George, what would you say that would be? A. Oh, probably 15 feet.

Q. And this leak that is on your place now just south of the Shaw ranch, you say that when that first started a garden hose would carry it off?

A. That is right.

Q. But since the break in the canal has been repaired a larger volume of water flows through there? A. A much larger volume of water.

Mr. P. J. Gallagher: That is all.

Mr. Hess: That is all.

(Witness excused.)

Mr. P. G. Gallagher: Call John Turner. [95]

JOHN TURNER

was thereupon produced as a witness in behalf of the plaintiffs herein and was examined and testified as follows:

The Clerk: Is yor name John Turner?

A. Yes, sir.

(The witness was thereupon duly sworn.)

Direct Examination

By Mr. P. J. Gallagher:

Q. Where do you live, John?

A. I live now on the Howard Bybee place.

Q. Howard Bybee's ranch? A. Yes, sir.

Q. And that is in the vicinity of Nyssa?

A. Yes, sir, between Nyssa and Ontario.

Q. And where were you living in 1946, Mr. Turner? A. I was living on Ben Shaw's place.

Q. And in 1945 where were you living?

A. In 1945 I was in the U. S. Navy.

Q. And were you associated with or working with Archie Hawkins during 1945?

A. I was employed by him in running a cat.

Q. And is Ben Shaw related to you?

A. Ben Shaw is my uncle.

Q. And was he operating and in possession of that little ranch in 1946? [96]

(Testimony of John Turner.)

A. Yes, he was living on it and he was running it.

Q. Now, first, John, did you help him get his hay crop off of there in 1946?

A. Yes, I went to work—Hawkins didn't need me that day and I went up there to help him hay.

Q. Were you up there after the ditch broke, John?

A. Yes.

Q. Do you know something about how that land lays below where the break occurred?

A. Yes, fairly certain.

Q. I wish you would take a look at that map and see if you recognize anything on Exhibit 82, see if that is familiar to you?

A. Well, I don't know the exact place, but this is——

Q. Well, is the map pretty well familiar to you, so you can pick up a spot?

A. Yes, I can see where it flows down across the place.

Q. Do you recognize the location of the canal on top there?

A. Yes.

Q. And do you recognize where it says "Wash-out" as meaning anything to you?

A. Yes, I recognize where the canal broke and ran down across the field.

Q. Now, John, see if you can locate a little headgate in the canal? [97]

A. Yes, this must be it running around here (indicating).

(Testimony of John Turner.)

Q. Are you familiar with about where that ditch is?

A. Yes, I have been up there quite a few times.

Q. I see. What were you helping Ben Shaw do there, John?

A. I was helping him stack hay that certain day.

Q. What crop of hay were you trying to get off?

A. Well, it was between clover, volunteer alfalfa and grass.

Q. Was it the first or second cutting?

A. Second cutting.

Q. And where was the hay being drawn in relation to those two washes there?

A. This hay was being taken off of this field there down to his house and stacked at the barn.

Q. Was there any of that area, John, that was wet, that you had difficulty getting your machinery to operate on?

A. Yes. We was pitching hay, was in that particular field that particular day, and up here by this lateral we had the tractor that was coming on a slip, and we had horses drawing a slip, and as we got up here to the very top of this ditch,—

Q. Which ditch?

A. This here lateral,—As we got up close to it,—Of course, we had been in the field quite a little ways—we got the tractor stuck, and so my cousin, who was pitching with me, said, “We have got to get this tractor out,” and so as we were doing that we saw the water that was seeping in where the [98] wheels spinned down.

(Testimony of John Turner.)

Q. How far was that particular spot below the main canal, the Owyhee Canal?

A. Well, I wouldn't say exactly, but, just approximately,—Oh, well, I couldn't say exactly, but I noticed and I said to my cousin——

Mr. Hess: Pardon me.—We object to that.

The Court: Objection sustained.

Q. (By Mr. P. J. Gallagher): You can't say what you said, John, but just state approximately the distance.

A. I would say approximately 250 feet.

Q. From the main canal? A. Yes.

Q. And how much of an area was so wet you couldn't operate a tractor?

A. Well, we couldn't see clearly, but, looking over it, we could estimate approximately an acre and a half.

Q. How far was the water from the surface of the ground?

A. The water wasn't on the surface of the ground, but we could see down where it was when the wheels cut down in the ground.

Q. How deep did your wheels cut in the ground?

A. I would say approximately five or six inches.

Q. And did the water rise in the tracks?

A. Yes. [99]

Q. And how did you get the hay off?

A. Finally we had to pack this hay up here with pitchforks.

Q. Who was doing the cutting of the hay?

A. Ben Shaw cut the hay.

(Testimony of John Turner.)

Q. And with what type of equipment?

A. He cut this hay with horse-drawn equipment.

Q. And could you say whether he had any difficulty?

A. I could see where his horses had walked across and mired down in there.

Q. How many days were you haying there, John, getting that little spot out?

A. Well, I would say approximately two or three days. I quit before we was through and went back to running the cat.

Q. You were running the cat for Mr. Hawkins?

A. Yes, sir.

Q. And was that in '46, John? A. Yes.

Q. That was before the break occurred?

A. Yes, this was before the break occurred. This was the first cutting of hay.

Q. Will you give me again your answer to the type of grass that was growing there?

A. This was clover, volunteer alfalfa and water grass.

Q. Water grass is the big, heavy, coarse grass?

A. Water grass you will find along your ditches anywhere [100] where there is lots of water.

Q. How much of the area under the ditch there would you say had a good area of the water grass in?

A. You could see it very easily, on account of it was cut down, and there was approximately an acre and a half to an acre.

(Testimony of John Turner.)

Q. Were you out there at the time this second break in the canal occurred, John?

A. Yes, sir.

Q. Mr. Hawkins, who was just on the stand, spoke about a Mr. Turner who went up there with him. Are you the Turner he referred to?

A. That's me.

Q. I wish you would tell, in your own words, the things you saw and did there during the period of time that you were on the ground on that evening that Mr. Hawkins said the ditch broke the second time?

A. Well, as I said, we had just got home and we heard some water coming down, so we both grabbed our hats and we run for the ditch. When we reached the ditch we seen the water was coming over the top of the ditch. Like he said, the cat was on the north side of the ditch, pushing over the ditch, and each time that he pushed his load over it would knock his load down on the ditch, so he run his cat over and he began to push down into the ditch. [101]

Q. And who was driving that cat?

A. Glowers was driving that cat.

Q. Clowers; and you say he was pushing in dirt to try to stop the water from coming over the top of the canal. What part of the break was he working on?

A. He was working from the north side.

Q. 'Dozing dirt in from the north side?

A. Yes, sir.

(Testimony of John Turner.)

Q. Was he making any headway towards stopping the flow over the dam?

A. Every time he would push a load over the water would catch it and throw it down over the side of the dam.

Q. Then, you stated, he went up someplace to where there was a cofferdam. Where was that located with reference to the break? Was it above or below? A. It was above.

Q. And would you say how far?

A. I wouldn't say exactly.

Q. And when you left there what was the Clowers bulldozer doing?

A. It was upstream 'dozing down onto the cofferdam when we left.

Q. You mean at the site of the cofferdam or at the site of the break?

A. No, he had went up to the cofferdam when we left and was [102] 'dozing down into the ditch.

Q. What was the purpose of that cofferdam, do you know?

A. I wouldn't swear to that exactly.

Q. Was there another cat there?

A. Yes, Mr. Terhune had his cat there.

Q. And where was Terhune's cat?

A. It was stuck down along the south side of the break.

Q. Could you step over there again and, after studying that map, mark about where the Terhune cat was stuck?

A. Well, of course, the break here run clear up

(Testimony of John Turner.)

to your canal, and there was a tree right here alongside the break that set down across the field away from the break,—in there somewhere (indicating)——

Q. Has someone else written the word "Cat" there? A. Yes, there it is (indicating).

Q. Does that agree with your notion of where the cat was located?

A. It was there, if not further from the break.

Q. Could you state whether or not the cat was stuck in the mud created by the break or in damp ground?

A. I couldn't state to that, but by the looks of the cat it was stuck in there and it had settled on him.

Q. Did you help get that cat out?

A. Yes, sir.

Q. What did you do? [103]

A. I ran the truck.

Q. And the truck, I understand, had a winch on?

A. That is right.

Q. All right. How late in the day were you there, John?

A. I would say approximately around six o'clock.

Q. And how late did you stay there?

A. It was fairly dark, because a guy pulled up with his car and had his lights on.

Q. Now, was the water still running over the bank at the time you left? A. Yes, sir.

Q. Did you go back the next morning?

A. No, sir.

(Testimony of John Turner.)

Q. Did you see it again at all after it was repaired?

A. I have never been up there at all after it was repaired.

Mr. P. J. Gallagher: I see. You may cross-examine.

Cross-Examination

By Mr. Hess:

Q. Let's see whether I have got this right. You lived at the Howard Bybee ranch, do I understand, Mr. Turner?

A. I live there now.

Q. Since you got out of the Navy?

A. That is right.

Q. And in '46 you were at the Shaw place?

A. That is right. [104]

Q. What is your age?

A. Twenty-three years old.

Q. And you worked for Mr. Hawkins during that year and helped Shaw with just this one hay-ing, is that it?

A. That is right.

Q. How many days did you work for him?

A. I would say two or three days I worked before I was through.

Q. How much of a crew did he have?

A. He had his kids and him and another one; I believe his name was Hibbard.

Q. Do you know whether or not that land was seeded to clover in 1946?

A. I wouldn't say exactly, but it looked like it was, on account there was more clover than alfalfa.

(Testimony of John Turner.)

Q. And how much of that grass would you say there was in proportion to the clover and——

A. Well, to the clover, it had just been mowed, you couldn't tell exactly, but you could see the water grass above the crop itself.

Q. But there was very little quantity?

A. I wouldn't say that.

Q. But what I am talking about was the amount that you put up as hay?

A. There was enough in the hay that you would pick up the hay and it would all spring apart, which would mean there was [105] so much grass in your hay the hay would fall apart.

Q. Well, what percentage was in the grass?

A. I wouldn't say exactly.

Q. Could you estimate?

A. I am no authority on that, so I wouldn't care to estimate that.

Q. Now, then, you say that tractor was stuck up there by that tree. What was that tree?

A. I wouldn't say exactly.

Q. How big a tree was it?

A. It was a slim tree and grew very straight and didn't throw much shade, because we cussed it quite a bit because it wouldn't throw much shade.

Q. How high was it?

A. I would say fifteen feet, something like that.

Q. That was below the lateral ditch, is that right?

A. I would say it was above. I wouldn't say exactly.

(Testimony of John Turner.)

Q. The tractor was stuck below the ditch?

A. Yes, sir.

Q. And that was above the tree, isn't that right?

The tree stood up close to the break?

A. The cat was stuck down in the field.

Q. You don't know how close they were together?

A. I don't know. I didn't pay much attention.

Q. In fact, you wouldn't know whether the tree was above or [106] below the lateral?

A. I wouldn't say exactly.

Q. Now, then, when Mr. Turner (sic) went up with you in the evening, you think you went up about six o'clock,——

A. You mean I and Mr. Hawkins?

Q. Mr. Hawkins, yes.

A. I would say approximately, yes. We had returned from our work.

Q. You generally quit work at what time?

A. Very late. We tried to get to work as soon as we could and quit as late as we could, to get as many hours as we could get on the cat.

Q. You would generally stay out until dark, did you, in the evening?

A. Not exactly. We tried to get home in time to get to bed so that we could get up early in the morning.

Q. What time did you leave in the morning?

A. In general, like he said, we weren't working too steady right then and we would get out around six or seven, something like that.

(Testimony of John Turner.)

Q. And you both went to work that morning together, did you, the morning after you had been up there on the bank and helped pulling the tractor out?

A. I wouldn't swear to that, but I know I wasn't up there the next morning after it broke. [107]

Q. You were not there the next morning at all?

A. No.

Q. You and he were together during the day, were you?

A. Yes, his son and I. What one wasn't working helped keep the equipment up.

Q. And how old is this son?

A. He is either twenty-three or twenty-four.

Q. But the three of you ran this tractor?

A. That is right.

Q. And that was the crew for the tractor?

A. That is right.

Q. And you would all go out together and come in together?

A. Not exactly. Sometimes one of us would run it at night, wouldn't come in together.

Q. But at that time you and he were working together, you and he and his sons?

A. That is right.

Mr. Hess: That is all, your Honor.

(Witness excused.)

Mr. P. J. Gallagher: Call Mr. Shaw. [108]

BEN SHAW

was thereupon produced as a witness in behalf of the plaintiffs herein and was examined and testified as follows:

The Clerk: What is your first name, Mr. Shaw?

A. Ben.

(The witness was thereupon duly sworn.)

Direct Examination

By Mr. P. J. Gallagher:

Q. Where do you live now, Mr. Shaw?

A. Near Plymouth.

Q. And did you formerly live on what we have been calling the Shaw place, located up near where the ditch broke in 1946?

A. I did.

Q. I wish you would step down to that map and take a look at it, Exhibit 82, and see if you can recognize that drawing as being anything like your place was after the ditch broke. That doesn't show all your place, Mr. Shaw.

A. Well, I don't understand this line here (indicating). What does that represent?

Q. Well, that is supposed to represent an area that shows signs of being water-soaked. Does that help you any?

A. I believe I can understand it.

Q. All right. Now, can you locate on that and see where the North Canal is?

A. The canal here (indicating). [109]

Q. Now, there is also a little place marked

(Testimony of Ben Shaw.)

“Head Ditch” down below. Can you locate that?

A. Yes.

Q. Now, from locating those main objects there, do you recognize what is marked there as “Wash-out”?

A. Yes.

Q. When was that land washed out there, Ben?

A. When was this washed?

Q. Yes. A. In 1946.

Q. And what caused that wash?

A. A break in the canal.

Q. Were you home when that canal broke?

A. I didn't live on that place.

Q. Oh, you were not living there then?

A. I lived at the end of Gem Avenue, two miles south.

Q. In 1946— '45 and '46, what were you raising on that place?

A. Well, in '45 I had grain in that particular ground, and in the fall of 1945 I planted clover, that is, on a portion of it, and south of the—South of there I had alfalfa.

Q. Did you have any trouble raising a crop there on account of excessive water at some of those spots?

A. Yes, I did.

Q. What particular part of the ranch, what location on the [110] ranch, in what area, would you say that you had too much water?

A. Well, there was—What bothered particularly was just a small part about the head of where that break took place, that wash.

(Testimony of Ben Shaw.)

Q. What did you observe there as to the underground water conditions?

A. Well, there was never any running water to my knowledge there, but it was very soft. Horses driving across it would mire down considerable, and water would stand in horse tracks and places like that. There was no running water.

Q. What time of the year did you observe that, Ben?

A. Well, I couldn't say as to that. I don't think it bothered any time only when there was water in the ditch.

Q. I see. After you started irrigating, then, it would be hard to get machinery across?

A. Yes, that is right.

Q. I mean to say, when there was water in the big canal that condition would show up on your place?

A. That is right.

Q. Now, you heard these boys testify to the trouble they had helping you get your hay off of that land. I wish you would tell the Court about how much of that area you were attempting to cut with your equipment where you had trouble with the water conditions. [111]

Mr. Hess: We object to that as assuming a state of facts not testified by this witness.

Mr. P. J. Gallagher: It is.

The Court: Objection sustained.

Q. (By Mr. P. J. Gallagher): Mr. Shaw, in the year 1945 did you attempt to hay in there yourself?

A. In 1945?

(Testimony of Ben Shaw.)

Q. Yes. A. Yes, I had grain there.

Q. You had grain there. Well, during '45 did you have any trouble harvesting that crop?

A. Some.

Q. And what was that trouble due to?

Mr. Hess: We object to that as calling for a conclusion of the witness.

The Court: Overruled.

A. In binding across this particular place the bull wheel of the binder would slide.

Q. (By Mr. P. J. Gallagher): Was it wet?

A. It was wet.

Q. Wet to the extent that the bull wheel would slide? A. Yes.

Q. Now, in '46 what did you have growing on that area under the ditch there, or the canal?

A. I had clover in the particular place where the wash is. [112]

Q. Where the wash is. Did you have any alfalfa growing in there?

A. Nothing only what might have been volunteer. We plowed out our alfalfa two years before.

Q. Were there any grasses mixed up with that?

A. Yes, to a certain extent there was.

Q. What was the nature of that?

A. Well, there was weeds of 'most any kind, so far as that goes, some water grass.

Q. Now, water grass,—Will you describe that to the Court, as to whether or not it is a well-known variety of forage, or is it just some wild

(Testimony of Ben Shaw.)

grass that grows up with an excessive amount of water?

A. Well, I wouldn't say particularly that it grows where there is an excessive amount of water particularly, because anybody on these lands has trouble with it.

Q. Now, in the harvesting of that crop in '45—in '46, I mean to say,—in '46, did you have any trouble in cutting that hay crop in '46, Ben?

A. I did.

Q. Was it the first or the second crop?

A. The first.

Q. The first crop; and just what was your difficulty there?

A. Well, it was just too muddy to mow across. I did manage to wallow through it. I used horses.

Q. Was there water on the surface or just immediately below the surface?

A. Well, just immediately below, you might say. Like I say, it would just come up in the horse tracks but never seemed to run off.

Q. And how much of an area was affected that way?

A. Oh, I wouldn't say exactly, but approximately a hundred and fifty feet.

Q. A hundred and fifty feet square, or wide?

A. Square, each way, I would guess at it.

Q. How far north does your line go, Ben?

A. How far north?

Q. Yes.

(Testimony of Ben Shaw.)

A. Well, in that particular forty where the wash is it is forty acres wide.

Q. Did you own the land for some considerable time after the ditch washed out?

A. Well, I sold the land a year ago last January.

Q. That would be, a year ago,—That would be 1947. You know pretty well where those washes are that came that were caused by the ditch break, where they are located now on the land. Was there any of that area wet, Ben, that was north of where the washes showed? A. North of the washes?

Q. Yes. [114]

A. Yes, there is quite an area that has always been wet.

Q. Now, further on over on the north side of your place, is there a draw down through there?

A. Yes.

Q. That is still on the old Shaw place?

A. Yes.

Q. Is there some seepage that runs into that draw?

A. There is quite a large stream of water runs there, and it runs the year around, since the canal was put in there, they tell me. I don't know. I never saw it before.

Q. Then there is a definite wet area north of the place where the wash occurred and the ditch broke?

A. Yes.

Q. Could you say how wide that would be, Ben, across there? A. That is, the first wet place?

(Testimony of Ben Shaw.)

Q. Yes.

A. How wide? Well, I would say it was—That I don't know; I never measured it.

Q. Would you say it was as much as a hundred feet?

A. Well, it is bigger than that across it; probably 250 feet.

Q. I see. When did you first acquire this place, Ben?

A. I homesteaded it in 1937.

Q. 1927? A. '37.

Q. '37. And when did you first notice this moisture up there [115] under the bank?

A. Well, I never noticed it when I first seeded this place, but I would say it was there approximately three or maybe four years before it broke.

Q. Before the break? A. Yes.

Q. What have you to say as to whether there had been an increase in that moisture, either in area or in extent of the moist condition of the land, from year to year?

A. Well, I never noticed the increase in particular, only in '46.

Q. In '46. That seep in the draw on the north side of your place, is that visible, Ben, from the ditch bank?

A. Yes.

Q. The road on top? A. Yes.

Q. And there is a considerable stream of water flows from that seepage?

A. Yes, there is. There is water from the canal.

Mr. P. J. Gallagher: You may cross-examine.

(Testimony of Ben Shaw.)

Cross-Examination

By Mr. Hess:

Q. There is just one other question on this lateral. Will you complete that lateral? Will you complete it where it runs through your place there?

A. What do you mean? This is close to being the head here, I reckon.

Q. Yes.

A. It should run around ahead of a little draw in here that comes down here to the lateral headgate up here (indicating), and on this it——

Q. Is that about right where that line is drawn?

A. That is just about right; and then it runs directly east.

Q. Will you continue it on from there. Make an "X" there and continue it on.

A. That, of course, runs straight east. It goes down here, I would say back below the buildings down here (indicating).

Q. Back below your buildings?

A. Yes, sir.

Q. I see. Then there is another one that goes out on the other side, is there, Mr. Shaw?

A. A lateral here.

Q. Yes. A. There is one comes down——

Q. Draw that, please. Draw that lateral.

A. Well, it runs off a little like this, I guess, and then down along there (indicating).

Q. And mark that lateral, will you. Mark that lateral also. Now you can just take your seat, Mr.

(Testimony of Ben Shaw.)

Shaw, please. How wide is that lateral that runs southerly and then down through your [117] field there? How wide is that ditch?

A. Well, it isn't the same all the way. It is approximately, I would say, two feet.

Q. And how deep?

A. In some places it is quite deep and other places——

Q. What do you mean by "quite deep," Mr. Shaw?

A. Well, where it has washed in the steeper part of the ground there, especially on that dam.

Q. How deep would you say, Mr. Shaw?

A. Oh, it is probably two feet deep.

Q. How often is water carried through that during the season?

A. Well, I usually irrigate my hay twice for each cutting.

Q. And how many cuttings do you have?

A. Three.

Q. And what times of the year does that take place?

A. Well, approximately the forepart of June, the first one, and then I would say the latter part of July, and then the third crop is usually different.

Q. Would that be some time the latter part of August,—through there? Some time the forepart of September?

A. Well, just to keep it from freezing up. I left it as far as I could.

Q. Now, the alfalfa that you left in that field,

(Testimony of Ben Shaw.)

alfalfa and alfalfa roots, many of them will come back again, you have some kind of a volunteer crop from that, as you do grain; isn't [118] that right?

A. Yes.

Q. And that is what you had in there with your clover, was a volunteer crop of alfalfa with it?

A. Well, any alfalfa would have been volunteer, because I didn't seed any.

Q. Was this new land that had been irrigated since the——

The Court; Now, just wait a minute. Alfalfa is a five-year crop, or more than that.

Mr. Hess: Well, only after it is plowed up. After it has been plowed up there would be certain roots that would be in the soil that would grow back again.

The Court: That is still not volunteer.

Mr. Hess: Well, I understand that, but I understand that is what was raised, whether that is an erroneous designation or not. A. That is right.

Q. And the grasses that you had were the normal grasses that you have normally on the new land in this country, is that right, in the hay?

A. Yes.

Q. There was nothing above your lateral ditch at any time in this area where the break was that had shown up, like any seeping that was on top of the soil?

A. Well, there was willows growing along where this particular [119] break was.

(Testimony of Ben Shaw.)

Q. Where were they?

A. On the bank above my ditch there.

Q. How far above it?

A. Well, they were quite close to the ditch.

Q. Quite close to the ditch? A. Yes.

Q. And could have been getting water from the seepage from your ditch?

A. Well, that wouldn't be my opinion that they were.

Q. But they could have been?

A. They could have been, I reckon.

Q. But, as you state, there was not any wetness on the canal bank at all there——

Mr. P. J. Gallagher: Just a minute. That is not fair cross-examination, because that is not what the witness said.

The Court: Well, if that is not what he said he can say that that was not what he said. It is fair cross-examination.

Mr. Hess: Would you read the question to him, Mr. Rauch?

The Court: Read the question.

(Pending question read.)

A. I don't believe I stated that there weren't any wetness there.

Q. (By Mr. Hess): Well, you had never observed any above that in your lateral ditch, had you?

A. Well, yes, I believe to a certain extent.

Q. There was nothing that stands out in your mind as to that at all, was there?

(Testimony of Ben Shaw.)

A. Well, I noticed those willows in particular, and I know it was damp, now, but, as I say, it wasn't maybe ten feet, something like that, from my ditch.

Q. This place where the break occurred was somewhat on the crest of a—We won't call it a ridge, but on a high place, was it not?

A. Well, where the particular wash was I filled in a ravine, nearing the north of the place, but it didn't extend up as far as where it broke out of the canal, but after it went down the hill approximately two or three hundred feet, why, I filled it up that far.

Q. Well, how far did the ravine reach up toward this place, to the bank of the canal?

A. I would say about two to two hundred and fifty feet, I would say, below my lateral.

Q. Well, that was high ground where the break occurred, however, was it?

A. Right where the break occurred it was high ground, but where the wash went down lower it was lower.

Q. It was lower. Now, this place that you designate where as a little draw on the place where the water seeps and goes through, generally how far north or south of this break was [121] that?

A. This particular place north is, I would say, oh, 300 feet to the draw.

Q. About 300 feet; and that is the place where you noticed most of the wetness, is that it?

A. That is right.

(Testimony of Ben Shaw.)

Q. And there has never been any break occur whatsoever at that place, has there? A. No.

Q. And there was much more indication of seepage up in that part, that far away,—

A. That is right.

Q. —that would tend to indicate that there would be a break, than where it did break?

A. That is right.

Q. That is correct, is it? A. Yes, sir.

Mr. Hess: Now, then, Mr. Shaw,—That is all.

Redirect Examination

By Mr. P. J. Gallagher:

Q. Just one other question, Mr. Shaw: You say that the little canal, the little draw, up on the north side of your place, is about how far from the place where the ditch break took place?

A. Well, I would say 300 feet. [122]

Q. Now, is that ditch bank wet all the way around that bend? A. No, it is not.

Q. Is the ditch bank wet at the place where the water comes out in the draw, where it is still running, runs the year around?

A. Well, it is wet enough that the Reclamation put in a drain after the break.

Q. Did they have a weir in connection with it?

A. Not to my knowledge, no.

Q. All right, now, getting back down to the place immediately north of the place where the break did take place, you say that that area under the ditch

(Testimony of Ben Shaw.)

there for a distance of 250 feet north shows signs of being wet? A. The ditch north, yes.

Q. Yes; but it doesn't go clear on around to where the ditch comes out of that draw on the north side? A. No.

Q. And when, then, did you notice the first time the willows growing on the side of the ditch in about where the break took place?

A. Well, I couldn't say that exactly.

Q. Was it more than a year or two before the break, would you say?

A. No; they weren't big willows.

Q. And about what area was covered with willow growth there [123] at the side of the ditch?

A. Well, I wouldn't know that.

Mr. P. J. Gallagher: I think that is all.

Mr. Hess: That is all.

(Witness excused.)

Mr. P. J. Gallagher: Your Honor, we had rather prepared to examine about this number of witnesses this afternoon.

The Court: All right. In order that you may know exactly what I am trying to do, I will hold court all day tomorrow, and Friday for a half day, then I will again convene Monday morning at ten o'clock. That gives you a little respite.

Mr. P. J. Gallagher: Yes, I understand.

The Court: I may start Friday morning at nine o'clock. I am not positive about that yet. See what progress you make tomorrow.

Mr. P. J. Gallagher: These witnesses who have testified today, this afternoon, will you want to call them back later on, or should I excuse them? They are all men that are busy.

Mr. Hess: What is that?

Mr. P. J. Gallagher: I say, these boys that have been on this afternoon, I would like to excuse them, unless you want to call them back.

Mr. Hess: No, your Honor, I don't.

Mr. P. J. Gallagher: If you do, we can get them. [124]

Mr. Hess: We think that that would be a pretty safe bet, that they won't be called back in again.

Mr. P. J. Gallagher: Then we can excuse them this afternoon? I will tell them that?

The Court: Yes. Court is now in adjournment until tomorrow morning at ten o'clock.

(Whereupon, at 5:15 o'clock p.m., Wednesday, June 9, 1948, the trial of the above-entitled cause was suspended, the Court taking an adjournment to 10:00 o'clock a.m., Thursday, June 10, 1948.)

June 10, 1948, 10:00 o'Clock A.M.

The Court: You may proceed, Gentlemen.

Mr. P. J. Gallagher: Call Darrell Percy.

DARRELL PERCY

was thereupon produced as a witness in behalf of the plaintiffs herein and was examined and testified as follows:

The Clerk: What is your name, please?

A. Darrell Percy.

The Clerk: P-e-r-c-y? A. Yes.

(The witness was thereupon duly sworn.)

Direct Examination

By Mr. P. J. Gallagher:

Q. Where do you live, Mr. Percy?

A. I now live out here, I believe it is eight miles east and about half a mile south.

Q. On a farm? A. Yes.

Q. During the year 1946 did you have any position with the Reclamation Bureau?

A. Yes, sir.

Q. What was your position? [126]

A. I was riding ditch for them.

Q. And, just briefly, what were your duties as a ditch rider?

A. Well, just delivering water, you know, in general, to the District.

Q. Did you have charge of the headgates on the various branches? A. Yes, sir.

(Testimony of Darrell Percy.)

Q. Do you recall the occasion of the break in the ditch in July of 1946? A. Uh huh.

Q. What part of the system were you patrolling at that time?

A. Well, I was below the break at the time. My ride, particular ride, was below the break. I was working on the crews up there at the break after the break occurred.

Q. And did you assist in such work as was being done to repair the break, Mr. Percy?

A. Yes, sir.

Q. Were you operating any machinery, or just hand work?

A. Well, no, not any machinery to speak of. Mostly all hand work, yes.

Q. Do you remember an occasion, after the break was repaired the first time, when you and some other employees turned down a head of water to the spot on the ditch where the break occurred? [127]

A. Yes, sir.

Q. Who went with you on that mission?

A. Well, there was Tom Pettet and Fred Kuhnley.

Q. Tom Pettet and Fred Kuhnley?

A. Yes.

Q. Were they also ditch riders?

A. Tom was. Fred wasn't. Fred was working with me on this other side; he was just helping.

Q. But Mr. Pettet had been the ditch rider for some years, hadn't he?

(Testimony of Darrell Percy.)

A. Yes, he has been a ditch rider there for quite a while, I think.

Q. As I understand it, the ditch first broke and then there were some repairs made, and after these repairs were being made, or after they were made, you and Mr. Pettet and this Mr. Kuhnley turned some water into the ditch, is that right?

A. That is right.

Mr. Hess: Just——

Mr. P. J. Gallagher: That is leading, but it is getting to the point.

Q. Now, then, how far along were the repairs made to the ditch at the time that you turned this water in?

A. Well, that is hard to estimate. I would say from four to six feet.

Q. That the bank had been built up? [128]

A. Yes, sir.

Q. And under whose direction did you turn the water down?

A. Well, it was under Fred, I would say, Fred Kuhnley.

Q. Fred Kuhnley? A. Yes.

Q. Were you there when Mr. Kuhnley received his orders as to what should be done?

A. Yes, I happened to be standing right there.

Q. And who told Mr. Kuhnley what should be done?

A. Well, I think the man is here. I believe his name is Gordon. He was an engineer from Boise.

(Testimony of Darrell Percy.)

Mr. P. J. Gallagher: Will you stand up, Mr. Gordon, and be Exhibit A, please?

(A gentleman in the audience stood up.)

Q. That was that gentleman? A. Yes, sir.

Q. What, generally, were your instructions, Mr. Percy?

A. Well, they sent me and Tom in the morning to get some water to fill this cofferdam, and, of course, the laterals were open and that didn't come up, and so they sent us up to get it so that they could use some of the water on that fill.

Q. Above the break will you just describe how the laterals lead out of the ditch and what number there were?

A. Well, I don't remember just exactly. Some of them were pretty good size, they carried quite an acreage, and others [129] were small, you know.

Q. And what time of the day did you start out to get this water down?

A. Well, it was around four o'clock, I would say.

Q. Four o'clock in the afternoon? A. Yes.

Q. At that time were they still working on building up the embankment? A. Oh, yes, yes.

Q. And what equipment did they have there at that time?

A. Well, they had the dump trucks running; I couldn't say just how many. Then they had two cats there, I think, working, two 'dozers, at the time.

Q. And you say the embankment was up somewhere between four and six feet?

(Testimony of Darrell Percy.)

A. Something like that, yes.

Q. Now, will you describe the ditch above the break, as to whether or not there are any stop gates or siphons or other means by which the water was held back?

A. Well, there was—The only thing, I guess, is that there were several of these little—I don't know how to tell you, whether they would be cofferdams—just sack dams, you see, at some of these laterals where farmers had been taking out water above the break.

Q. How many of those sack dams were there in the ditch [130] between the break and, say, Sheep Creek siphon?

A. Well, if I remember right, there was four or five.

Q. And how many gates were there between the break and Sheep Creek siphon?

A. Well, that is—I couldn't say for sure, but I imagine about eight or ten, somewhere along in there.

Q. And what did you do towards closing the gates?

A. We just shut them all down and locked them.

Q. And did you take out these temporary dams that were in there? A. No.

Q. They were left in? A. We left them in.

Q. Now, will you describe for the record just what Sheep Creek siphon is?

A. Well, it is just a big check right at the head of the pipe.

(Testimony of Darrell Percy.)

Q. No, the siphon itself? Is it a siphon of similar type to this Commander Siphon out here?

A. Oh, yes, something like that.

Q. But much shorter? A. Oh, yes.

Q. Does that siphon carry the entire flow of the North Canal across the Sheepshead Creek (sic)?

A. Oh, yes. [131]

Q. Now, was there anything done at the upper end of the Sheep Creek siphon to stop the flow of water?

A. Yes, there were some checks in there.

Q. Just what were they? What was the nature of those checks?

A. They were 4 by 6 timbers, if I remember right.

Q. Were they placed across the face of the siphon?

A. Crossways, whatever the check is.

Q. And were those checks in there when you and Mr. Kuhnley and Mr. Pettet got up there?

A. Yes.

Q. How much of the water, of the flow of the canal, was held back by the checks in Sheep Creek siphon?

A. Well, I don't know, I have never had too much experience above there, but it was quite a body of water; it went back up quite a long ways.

Q. Was the ditch pretty well filled above Sheep Creek?

A. Well, yes, it was up pretty well, you know. Of course, they had Sheep Creek checked pretty

(Testimony of Darrell Percy.)

high, you see, and it was filled up pretty high.

Q. And when you say "filled up pretty high" you mean the check boards were up pretty well toward the top?

A. Well, pretty well, yes.

Q. What did you do towards releasing the water that was backed up by these boards?

A. Well, we pulled the checks out. [132]

Q. When you say "checks" do you mean——

A. We pulled the planks out, you see, check boards.

Q. Did that release the volume of the water that was held back, then? A. Oh, yes.

Q. And how many of the check boards did you pull out?

A. If I remember right, it was four.

Q. How far down did that release the water from the head of the siphon?

A. Well, I would say about two feet and a half, something like that.

Q. All right, then how far is it from the head of the siphon up to the Lockett Spillway?

A. Oh, I would say around three miles, something like that.

Q. Did you notice the amount of water that was in the canal between those two points as you were going up the stream, the canal?

A. Well, I didn't pay no great lot of attention to it, no. It was a pretty fair head of water. It was checked so, you know, so that you couldn't really tell what the flow of it was.

(Testimony of Darrell Percy.)

Q. No, I was asking the volume of water in the ditch. Was the ditch pretty full?

A. Well, no, I wouldn't say awfully full. I would say it looked and viewed to be up to normal.

Q. What is the apparatus in the ditch at Lockett Gulch which controls the flow of water in the ditch?

A. Well, I don't know just how to explain it. They are maintained on a wheel, on a headgate, you know. You maintain your steel gates.

Q. Steel gates across the canal? A. Yes.

Q. And how many of those gates are there?

A. Two.

Q. Side by side? A. Yes.

Q. And does that control the flow of the water down the canal? A. Uh huh, I think it does.

The Court: Now, just for clarity on my part, will you point out on the map, or have somebody point out on the map, where Sheep Creek siphon and Lockett Gulch are?

Mr. P. J. Gallagher: I will probably have to step over there myself, to see it myself, your Honor.

The Court: All right.

(The Court, Mr. P. J. Gallagher, and one of the Reclamation Bureau engineers here approached said exhibit and a conversation in an undertone, inaudible to the Reporter, ensued.)

Q. (By Mr. P. J. Gallagher): When you got to Lockett Gulch, [134] Mr. Percy, how far open were the gates?

(Testimony of Darrell Percy.)

A. Well, I would say about two feet. They open from the bottom up, you know.

Q. From the bottom up to the gate was about two feet? A. Uh huh.

Q. Do you know how wide across those gates are?

A. No, I don't. About eight or ten feet, though, the others are, I think.

Q. What was done towards opening the gates any further?

A. Well, Tom opened one and I opened the other one.

Q. How far did you open them up?

A. Oh, I would say we raised them about two feet.

Q. That would make the total clearance under the gate four feet?

A. Yes, somewhere in there.

Q. Did you observe the amount of water that was released and going down the ditch after the gates were open?

A. Well, no, I really didn't. You know, I had never seen that particular ditch. It is pretty hard to guess on a ditch you have never seen under pressure, you see.

Q. Was that water under pressure under the gates, coming out? A. Oh, yes.

Q. What percentage of the capacity of the ditch would you say was filled when you opened the gate? How far up on the ditch? [135]

(Testimony of Darrell Percy.)

A. Well, I don't know. It must have been probably three feet, something like that.

Q. Well, it was two feet from the bottom, then you opened it two feet. Would it be more than three?

Mr. Hess: We object to that as suggestive, your Honor. A. I misunderstood your question.

The Court: No, I think the witness was slightly confused. I think it is all right to call it to his attention. He testified it was raised to four feet already. Is that what you want to stand on, that you raised the gates to four feet?

A. Yes, that is about right. I misunderstood the flow of the canal.

Q. (By Mr. Gallagher): Will you answer the question again. I asked you about how far up on the ditch the water was after you opened the gates?

A. Well, I didn't pay no particular attention, because we opened the gates and went on back to the break, you see, and it was right there in that cut, you see, so you couldn't really tell. You see, the road is already 10 or 15 feet, maybe 20, above the ditch, you see, in that long cut right at the Lockett Gulch.

Q. What time of the day was it when you finally opened the gates at Lockett Gulch?

A. Well, it must have been in the neighborhood of five o'clock in the evening. [136]

Q. Now, at the Lockett gateway is there a spill-way above that to spill water over into Lockett Gulch? A. Yes.

(Testimony of Darrell Percy.)

Q. What was done towards closing the spillway gate? A. Well, sir, I really don't know.

Q. Let's see, there were three of you in the party? A. Uh huh.

Q. You don't know what was done at the spillway gate?

A. No, I don't know what was done to it.

Q. And was there a considerable head of water back of the iron gates when you opened them?

A. Yes, sir, it was backed up quite a bit. There was quite a bit of water backed up there. I did notice it going down the spillway gates. Just what had lowered it I couldn't say.

Q. Where did you go after you manipulated the gates at Lockett Gulch?

A. We went on back to the break.

Q. Did you get back before the head of water reached there? A. Oh, yes.

Q. How long did it take you that evening to get back from Lockett Gulch to where the break occurred?

A. Oh, I suppose probably an hour, something like that.

Q. Driving along the ditch bank? [137]

A. Yes, we just drove right down the ditch bank.

Q. Do you know how long it would take the water, in the normal flow, to make that same distance?

A. Well, I don't know. I imagine probably an hour, something like that.

(Testimony of Darrell Percy.)

Q. And how far apart—

Mr. Hess: We move to strike that out your Honor. It is just imagination.

The Court: No, it isn't imagination. It is just an estimate on his part. I can judge his qualifications. As a matter of fact, I can make an estimate myself. Go ahead.

Q. (By Mr. P. J. Gallagher): What is the mileage between Lockett Gulch and the place where the break occurred?

A. Oh, I would say, just to guess at it, five or six miles.

Q. How long did you stay on the job after you got back that evening?

A. Well, we didn't—We never stopped on the job. We was supposed to—I think, if I remember right, we were supposed to get off at four o'clock, and it was a little after six, so I and Tom went right on home.

Q. When did you first learn that the ditch had broken the second time that night?

A. Well, the next morning, about eight o'clock.

Q. When you got back what did you find there in the condition of the bank? [138]

A. The bank was all gone, you know, and just a head of water going through there.

Q. The bank was all gone? A. Yes.

Q. That is, the bank they had been working on the day before?

A. Well, there was just a little left on the north end.

(Testimony of Darrell Percy.)

Q. Could you estimate the length of the fill that they had put in, that they had been working on the day before? A. Oh,—

Q. If you don't know, there are other witnesses that would know more accurately.

A. Fifty feet, I would say. I couldn't say,—maybe sixty.

Q. And when you got up from your home the next morning the bank was all taken out, except a little portion on, you say, the north end?

A. Yes.

Mr. P. J. Gallagher: All right. Now, the testimony will be for a little different purpose, a little different line of testimony, your Honor.

Q. Did you continue on as a ditch rider for the weeks immediately following the ditch repair?

A. Yes, sir.

Q. What are, now, did you supervise, starting in—or what laterals did you supervise?

A. Well, I rode from the head of the big siphon here west. [139]

Mr. P. J. Gallagher: May I locate that on the map, your Honor?

The Court: Yes.

Q. (By Mr. Gallagher): Would you step down here, Mr. Percy. Now, that mark I am pointing to is the head of the big siphon. Will you just state what area you supervised west from that point?

A. 38.9—Here it is, 38.9, lateral 38.9.

Q. That is 38 on the map?

(Testimony of Darrell Percy.)

A. That is lateral Number 38.9, yes, sir.

Q. Did you ride the territory clear to the end of that lateral? A. Yes, sir.

Q. And that lateral takes off from the main canal at the head of the siphon? A. Uh huh.

Q. When did you get the water into your lateral for distribution to the farmers, Mr. Percy?

A. Well, sir, I can't answer that question exactly. I got water, though, in my portion just as soon as they got water in the second time, but now I can't give you the exact date of that.

Q. That is all right. Do you know what the capacity of your lateral is in inches or second-feet?

A. Well, it runs from about 2400 to 3000 inches, the way it [140] was running.

Q. You mean miner's inches?

A. That is the portion of water that we run most of the time.

Q. And by "inches" do you mean miner's inches? A. Yes.

Q. Now, that was your normal supply of water for your farmers there? A. Yes.

Q. Now, how long did it take you after you first got water to build up to—for the supply to build up to where you had your normal water supply?

A. Well, I can't tell you exactly, but it was in the neighborhood of a week to ten days, I would say.

Q. During that period of time was your supply of water below the normal demands of the farmers?

A. Oh, yes.

(Testimony of Darrell Percy.)

Q. Was that supply built up gradually, or did you suddenly get your normal supply?

A. We built up pretty gradually. Each day we would get granted a little more as the ditch raised below us.

Q. And how was that supply regulated to you?

A. Well, it was five inches, the normal supply, then they would give me my percentage of my five inches for my district, you see; if it was 25 per cent, —I forget what we started with [141] —and then we would get an addition to that, usually, every day, to that, you see.

Q. And that continued on for a period of a week or ten days? A. Yes.

Mr. P. J. Gallagher: You may cross-examine.

Cross-Examination

By Mr. Hess:

Q. As I understand, your part of the ditch here that you were riding was from 38.9, Mile Post 38.9, to the Sheep Creek siphon, is that correct?

A. Yes.

Q. Well, just state, what was it?

A. I rode from 38.9 mile post on west toward Vale.

Q. On west toward where? A. Vale.

Q. Toward Vale? A. Yes.

Q. How many miles did you cover?

A. I think it figured eleven miles at 36 miles. Now, I am not positive as to that.

Q. Did you work there at the point of the break

(Testimony of Darrell Percy.)

other than handling this water, this flow of water that you speak about? Did you work at the break?

A. Well, I worked there all the time during the break while the water was coming. [142]

Q. What was the nature of your work that you were doing?

A. Well, I don't know. You would just call it a kind of a flunky job, and little odd jobs, such as that,—hauled in headgates, and such as that.

Q. That was during the time the 'dozers were operating across this fill that they were making to repair the first break? You were there during that period of time? A. Uh huh.

Q. And how wide was that first fill that they were putting in,—that is, that covered the first break? How wide would you estimate that?

A. How wide——

Q. That is, figuring up-and-downstream of the canal? I mean, how big a break was it, in your estimation?

A. Well, I would say about 50 feet, somewhere, 60.

Q. About 50 or 60 feet?

A. Along in there someplace.

Q. I see. And after the water had been turned in, as I understand, you had heard about this second break about eight o'clock the next morning, is that correct?

A. Yes, I was there to go to work the next morning at eight o'clock, around eight o'clock.

(Testimony of Darrell Percy.)

Q. Was there any water flowing out of there at that time? A. Yes.

Q. How much water? [143]

A. Well, I wouldn't attempt to say. There wasn't too awful much going out of there at that time.

Q. Not much water going through it?

A. Oh, I would say four or five hundred inches, I would say. It wasn't too awful much.

Q. Is that miner's inches? A. Yes.

Q. Four or five hundred miner's inches?

A. Yes.

Q. How much of the north bank of that fill, or the south bank of that fill, whichever it was, was still remaining?—That would be the upstream side, as I understand, the upstream side of the fill?

A. Oh, I would say there was a lap there of about, oh, 15 or 20 feet.

Q. That hadn't gone out? A. Yes.

Q. And you stayed there during the whole repair, then, the completion of the repair?

A. Uh huh.

Q. That never did go out, did it?

A. Oh, no, no. I think it was finally worked down on the second repair, but it never did go out, no.

Q. And how high was that bank,—that is, from the bed or bottom of the ditch, how high was that fill, would you say? [144] How far had it been built up, how many feet?

A. Oh, I would say from about four to six feet, along in there.

(Testimony of Darrell Percy.)

Q. That is an estimation. It could have been higher than six feet, could it not?

A. Well, it was right in the neighborhood, yes. You know,——

Q. Around the neighborhood of six feet, would you say?

A. I think so, four to six, along in there.

Q. And that was four to six feet high over the top?

A. Yes.

Q. Was there any evidence that water had gone over the top of that? Did you notice anything of that nature?

A. I misunderstood your last question there. I thought you meant how high was the fill when the water was turned on.

Q. Well, how high was the fill on the north side—or, I don't mean the north side—the upstream side—How high was that fill that remained?

A. Oh, I would say about eight feet.

Q. It was about eight feet high?

A. Uh huh.

Q. That is, from the bottom of the North Canal?

A. Uh huh.

Q. And that is the way you found that the next morning when you came down to work?

A. Uh huh. [145]

Q. Was there evidence that water had spilled over the top of that?

A. Yes, sir.

Q. There was evidence that water had gone over the top of it?

A. That is right.

(Testimony of Darrell Percy.)

Q. And I presume some of the loose dirt had been taken off of the top there?

A. It was washed. There was, oh, several little crevices, you know, perhaps a foot wide, a foot deep, where the water had washed across it.

Q. From the top of it? A. Yes.

The Court: I may say, Mr. Hess, that I don't understand this testimony. He talks about four to six feet, and then you ask him something else and he talks about eight feet, and I don't understand.

Mr. Hess: Well, I don't understand that either, your Honor.

A. Well, I don't know what you are asking?

Q. (By Mr. Hess): The only question I was asking you is, how high was this fill from the bed of the canal, that is, the bottom of the canal, that was remaining on the upstream side of the fill that had been made?

A. Well, I suppose that piece we stuck on there was about [146] eight feet.

Q. I see. In the repair and during the repair of this first break, I will ask you if the repair had been made level across that first break?

A. No.

Q. The same height? A. No.

Q. Describe that, in your own language.

A. The north end was quite a lot higher than the south end.

Q. How much higher would you say?

A. Well, I don't know. They dumped trucks in there. The gravel came from that way, and the

(Testimony of Darrell Percy.)

north end was quite a little bit higher than the south end or the middle.

Q. Did the trucks or the 'dozers, during the time that they were making that fill across there, work straight across the fill in their tamping the dirt down? How did they do that?

A. Well, they worked both ways, see. Sometimes they would go straight across and then bring in dirt and go the other way. They was trying to go all ways.

Q. How wide was the fill,—What I mean, now, is not the length upstream and downstream, but the width over the top—would you say?

A. Oh, I would say in the neighborhood of about 30 feet. It was the full width of the other old bank, you know.

Q. That is, on the top. [147] A. Yes.

Mr. Hess: I think that is all.

Redirect Examination

By Mr. P. J. Gallagher:

Q. Mr. Percy, one of your answers was a little confusing,—not in relation to counsel's question. Counsel was asking you about the height of this embankment and he used the word "upstream," then you gave the height of the bank as of the north end. Now, the north end would be the downstream side of the ditch, wouldn't it? A. Yes.

Q. The ditch runs north and south?

A. Yes.

Q. Is it your answer that the 8-foot height that

(Testimony of Darrell Percy.)

you observed there was on the north end of the embankment, or the downstream side?

A. It was on the low side, yes, the downstream, not on the upstream.

Q. And was that the portion that was still remaining the next day? A. Uh huh.

Q. And then the entire portion of the bank that was built in there on the south end or upstream side was washed out? A. Uh huh.

Q. And you say there was evidence that the water had gone [148] over the remaining—the part of the bank that still remained, when you saw it the next day? A. Uh huh.

Q. I see; and that, you think, was as high as eight feet on the north end there?

A. I would say something like that.

Q. Counsel also asked you whether or not the bank when you last saw it was level clear across.

A. No.

Q. It was not? A. No.

Q. And you think the bank was built up higher on the north side? A. Considerably higher.

Q. Considerably higher. Were they 'dozing the dirt in from the north and the south, both?

A. Yes, trying to mix it you know.

Q. One question I didn't ask you: When you got back from your mission upstream, opening these headgates, before you went home had the water begun to run over the bank at that time?

A. No.

Q. It had not? A. No.

(Testimony of Darrell Percy.)

Mr. P. J. Gallagher: That is all, Mr. Percy, thank you. [149]

Mr. Hess: That is all.

Mr. P. J. Gallagher: Just a minute, Mr. Percy, please. All right, thank you.

(Witness excused.)

Mr. Lytle: Call Mr. Terhune. [150]

HUBERT F. TERHUNE

was thereupon produced as a witness in behalf of the plaintiffs herein and was examined and testified as follows:

The Clerk: Your name, please?

A. Hubert F. Terhune, T-e-r-h-u-n-e.

The Clerk: Hubert?

A. Yes.

(The witness was thereupon duly sworn.)

The Clerk: Hubert F. Terhune.

A. That is right, commonly known as Jack Terhune.

Direct Examination

By Mr. Lytle:

Q. Where do you live, Mr. Terhune?

A. Four and a half miles southwest of Nyssa.

Q. How long have you lived there?

A. Two years in April.

Q. Where was your place of residence prior to that time?

A. Richmond, California.

(Testimony of Hubert F. Terhune.)

Q. What is your business or profession?

A. Well, I am engaged in land leveling.

Q. How long have you been engaged in that type of work? A. For about twenty-two years.

Q. Has your work during that past 22-year period been confined wholly to land leveling, or work of that kind?

A. General construction in the grading field, construction [151] and paving.

Q. What construction work have you engaged in?

A. Highway, airport, levees, and small earth-filled dams.

Q. Have you engaged in any construction in connection with irrigation projects?

A. No, nothing only of a very minor nature.

Q. Were you acquainted in 1946, in the month of July, with what is known as the Owyhee Project North Canal?

A. Yes, sir, I was contacted and I went up there.

Q. Did you do any work on that canal in that month of that year?

A. Yes, I spent about two weeks there. I don't remember the exact day of arriving there or leaving there, but in the neighborhood of about ten days or two weeks.

Q. What was the nature of the work you were doing?

A. I was operating my equipment. I was running a tractor, 'dozer.

Q. What type or model of tractor and 'dozer did you have?

(Testimony of Hubert F. Terhune.)

A. I have a D-8 Caterpillar tractor, and I had a LaPlante-Choate angle 'dozer at that time.

Q. What would be the over-all weight of that machine?

A. It is written on the side as weighing 46,600.

Q. Did I understand you to say that you were contacted to go up on that job?

A. Yes, sir, that is right. [152]

Q. Who contacted you? A. Mr. Spofford.

Q. And who is Mr. Spofford?

A. I presume he is in charge of the Reclamation District in that locality.

Q. His headquarters are where

A. Are at Nyssa.

Q. About what time of day or night was it when you went up to this particular job?

A. I presume that I arrived at the particular scene of the break with my equipment at about eleven o'clock, and that was my first sight of it.

Q. And what did you see?

A. There was a gap there in the ditch bank on the lower side that had washed out, and there was one tractor working there at that time.

Q. Do you know whose tractor was working there at that time?

A. It belonged to Clowers Brothers.

Q. Clowers Brothers?

A. Yes, that is right.

Q. How much of a gap was there there?

A. Well, it would seem to me at the bottom it would be about 15 feet wide and at the top perhaps

(Testimony of Hubert F. Terhune.)

60 feet, shaped down. There had been some work. They had already started removing loose material in the bottom and they were working out through the gap.

Q. You say they were placing the loose materials in the bottom?

A. They were working loose material out of the bottom of the break and shoving it outside at the time I got there.

Q. Did you do any work in the bottom of the canal? A. Yes, I did.

Q. From the part where you started to work were you able to see what would be the normal bottom of the canal,—that is, on the section either south or north of the break?

A. Well, I don't know whether I completely understand that question or not. When you speak of the bottom would you mean the bottom of the normal grade of the canal or the bottom of the canal as I saw it then?

Q. The bottom of the normal grade?

A. No, it was very much washed out and very much lower than the bottom of the normal grade would have been. I don't know how much lower, because it would be pretty hard to tell exactly how far the bottom would be but it was completely washed down to the sandstone.

Q. It was washed down to what type of material?

A. A brown sandstone material.

Q. And how did that brown sandstone lay as to being flat or sloped?

(Testimony of Hubert F. Terhune.)

A. Well, it seems to be in layers about four to six inches [154] and it flaked off very easily, being soft, and the slopes in the seams seemed to slope out with the natural ground level, which is out toward the valley.

Q. Now, the west bank of the canal, was that toward the valley or toward the hillside?

A. Well, now, I am not too familiar with directions there. I never did quite straighten out on directions. I would rather refer to it as upstream and downstream and the valley side or the hill side.

Q. All right. Observing the map on the board, which is Plaintiffs' Exhibit No. 82, indicating on that map that the direction of flow of the canal at that point is north——

A. That is right, referring to this map the flow is north, but this would be what I would term the back side. If the flow is going this way (indicating) that would be the left side of the canal going downstream,——

Q. Yes.

A. ——and the right side, looking downstream, would be the valley side.

Q. Would be the valley side. Now, was the bank side of that stratum in the ditch where you started to work higher at the bank side or the valley side?

A. Well, it is much higher on the bank side. That would be the left side, looking downstream. It is much higher.

Q. From the physical evidence on the ground on that section [155] of the canal from the north end to

(Testimony of Hubert F. Terhune.)

the south end of the break, could you indicate in some manner to determine the construction of the ditch originally?

A. Well, it would be pretty hard to determine the construction of the ditch originally, outside of having this sandstone bottom, which we cleaned out and was washed out reasonably well on the upstream end, back to the cofferdam that we had in there, which was possibly, oh, 200—no, between 200 and 300 feet, I would say, back of the break. The cofferdam was in there, and in that section you could see very plainly it was down to your sandstone. It was already washed out, and we cleaned out any loose sandstone that was in there; but downstream from the break it was practically under cover and not cleaned out or even washed out, so the silt and everything was in the original place as it had originally been.

Q. From that section of the break down to the cofferdam did you find any evidence of a core or core wall of any sort to the original ditch?

A. No, there was no evidence of any core being used whatsoever in the bank and showing in the break.

Q. You mention a cofferdam about 250 feet upstream of the canal. Was that in when you arrived there?

A. Well I believe it was. I believe that was in. If it wasn't in, then it must have been put in shortly afterwards, [156] but just to be certain, it was either in or put in shortly afterwards.

(Testimony of Hubert F. Terhune.)

Q. Very close, one way or the other, at the time you arrived? A. That is right.

Q. Now, just what work did you do?

A. Well, I operated the equipment. At first we cleaned out all this material in the bottom of the ditch, then after the engineers were satisfied with the bottom of the ditch, why, we cut away the banks on each side of the break to get back to some type of material that would show up reasonably sound, and after we cleaned that back on each side of the break, which we probably cleaned back 25 feet, I would say, on the upstream side and possibly 50 or 60 feet on the downstream bank, and after that was cleaned to their satisfaction and cut back, why, then we cored where we were going to place the fill to go across the break, we cored it down possibly two to three feet, and maybe a little more, with a 'dozer, and then they took some hand men and went in there and attempted to core it down another 18 or 20 inches, probably two feet at the most, and I believe they also used a drag-line over on the side, where it was used to get the core trench on down a little deeper.

Q. Now, tell the Court rather in detail what you mean by coring. [157]

A. Well, coring is to get down below where you have a core or a plug in solid, firm material that couldn't be washed out, due to your sandstone bank on the downstream as well as the upstream side. In other words, you just place a core of selected material which is satisfactory to them to be watertight

(Testimony of Hubert F. Terhune.)

or so water can't get through it, and being that this core is solid no water can get through it, and it also keeps the bottom of your fill on top absolutely dry, because you don't have that seepage coming underneath.

Q. Now, what material was used in the coring?

A. It was the material out of a spoil bank, as I remember, that we had removed, which evidently satisfied the engineers and must have been all right, because it is still there.

Q. Now, you are talking about the engineers. Who was the engineer?

A. Mr. Gordon there was the man chiefly in charge of the job, I presume under Mr. Spofford, as he was also around.

Q. After having built your trench for the core,— A. That is right.

Q. —did you then proceed with the fill?

A. That is right, we proceeded to backfill the trench in layers and compact it by running the tractors back and forth over it.

Q. Was there any compaction of the core by means other than your tractor traffic over it? [158]

A. That is all; that is right.

Q. I may be just a trifle confused. I understand, then, by your answer that there was no other compaction—

A. No other compaction used except the tractors being taken back and forth over it several times.

Q. Now, as the process of building up the valley

(Testimony of Hubert F. Terhune.)

side bank or the outer bank of the canal progressed, where did you get the earth?

A. The earth was partly imported and partly the old spoil bank that we had shoved out in cleaning out these ends of these wings of the break. I would say probably 75 per cent imported and 25 per cent of the material of an old spoil bank and excess dirt on the ditch bank was used.

Q. And from where was it imported?

A. I don't know exactly, but it was something like—Well, they had a dragline in once about a mile west, I believe,—No, let's see. It would be perhaps a mile east from that place, in that farmer's place. I don't remember who the farmer is. And then they moved material, I think, from possibly three or four miles southeast of the break.

Q. In any event, Mr. Terhune, it was quite some distance from the scene of the operation?

A. That is right.

Q. Was any earth taken from the higher bank or the hillside?

A. Nothing only for silting-in purposes in the bottom as we [159] raised the fill. None of the dirt on that side of the bank came into our operation.

Q. How was that operation performed?

A. It was the Reclamation District's tractor. They put it up on top and he pushed dirt over off of the top of the hill and it fell down into the bottom where the break had been and where we had cleaned out in the section we had opened up.

Q. And over how long an area was that?

(Testimony of Hubert F. Terhune.)

A. Oh, I presume he worked over an area perhaps 200 feet long along the ditch bank along the upper side.

Q. When that earth was spilled in the canal was there any compaction whatever of that?

A. No, sir; it was spread out a little bit but there was no particular effort made for compaction of that particular earth that was put into the bottom of the canal for silting purposes.

Q. Did this tractor remain up on the hill or mountain side during the entire period that you were there?

A. No. No, he came down. He perhaps worked up there six or eight hours pushing over and then he came down and crossed back over to perform some other duties on the slope side of the canal that we were working on.

Q. Did he come down north or south of the break.

A. He came downstream from the break.

Q. Did he come down on a regular roadway?

A. No; they had built a road and he went up and down the side of the bank on the road that they had constructed up there just for that purpose.

Q. Now, can you give the Court any idea of the grade of that bank which he came down the last time?

A. Well, I would presume the bank at the point where he came down was possibly 35 feet high and he took an angle down it of about—oh, let's see, I guess he must have come down on an angle with the ditch of about 60 degrees. Probably about a 30 per

(Testimony of Hubert F. Terhune.)

cent grade coming down or upwards is about all a cat will climb.

Q. That is, on his line of travel?

A. That is right.

Q. Now, about what was the grade, if you could say, of the bank itself?

A. I could say on about a one-to-one slope, possibly slightly steeper, although—No, it seems like it would be probably about three-quarters-to-one. It is reasonably steep at that particular point.

Q. What was the nature of the material at that place in the bank, if you know?

A. Well, up the bank it is more or less of a chalky silt, chalky-looking silt, and of course as you came down on the bank you would run into stratas of what is termed sandstone and hard pan and the like of that. [161]

Q. Did you observe him when he came down?

A. No, sir, not particularly.

Q. Did you observe that particular point after he came down? A. No, sir.

Q. About what time did you arrive at the scene for work?

A. I imagine around shortly, I would say,—well, reasonably close to six o'clock in the morning.

Q. Did you immediately proceed to work with your equipment?

A. That is right. Probably within twenty minutes after arrival, why, I——

Q. How long did you work, Mr. Terhune?

A. I generally worked until about—well, more

(Testimony of Hubert F. Terhune.)

or less depending on how the job could stand the work. If it was something that we could do I would work a little longer hours, or if it was where one cat could take care of it, why, twelve hours would have been about my average day's work, generally quitting somewhere around seven, seven-thirty in the evening.

Q. Did you work in connection with that fill from the time following the first break up to the time of the second break? A. I did.

Q. On the evening before the first break—before the second break, did you have your equipment in operation?

A. During the evening before the second break? Yes, I had it in operation before the second break.

Q. Did you have any difficulty in connection with any of your [162] equipment?

A. Well, at the time the water topped the fill—Maybe I don't quite understand that question. I believe the way you probably mean it, at the time the water went over the fill I had already shut down and was already preparing to go home, I had serviced my equipment and was getting ready to go home, when the water came over the top of the fill.

Q. Now, how late did you work with your equipment the evening before the second break?

A. I worked until, I would say, shortly after midnight; I would say between twelve and one o'clock, possibly twelve-thirty or in that vicinity.

Q. Was there an occasion before you quit that night when water came down the canal?

(Testimony of Hubert F. Terhune.)

A. I don't believe I understand that just exactly as to how you mean.

Q. Was there any occasion that night before you quit work when water came down the canal and in that portion of the canal where the break was repaired?

A. Well, I believe you will have to state that different for me to get just exactly what you want me to answer.

Q. Well, all right. At any time that night was there water running in the canal at the point where you had been repairing the break?

A. Yes, there was; at the time the water went over the top [163] of the bank, why, there was water in the canal.

Q. All right, now, when did that water first come?

A. Well, to the best of my knowledge now, due to the time that I was generally quitting, I would say somewhere around seven-thirty in the evening.

Q. What, if anything, had happened to the cofferdam that had been put in that 250 feet up from the break?

A. The cofferdam was out at the time the water came over. The water was coming over the cofferdam.

Q. Are you able to state about the height to which the fill had been raised at the time the water went over it?

A. No, that is pretty hard to say exactly where

(Testimony of Hubert F. Terhune.)

the fill was at at the time the water went over, because we had—The bottom of the ditch, if it had stood when we brought the grade up, was much lower than the bottom of the ditch as it should have been. We had a bank approximately ten or twelve feet up above the bottom of the ditch at that time.

Q. And, as I understand, you are unable to state how the bottom of the ditch as it stood then compared with the bottom of the normal grade of the canal?

A. No, it would have been hard to have said where the bottom grade of the canal should have been.

Q. Was the bottom of the canal there higher or lower than the normal grade?

A. It was lower, much lower, than the normal grade would have [164] been of the bottom.

Q. Would you be able to make an estimate of the number of feet lower?

A. Well, not accurately, but I would say it was at least two or three feet below, anyway, the bottom grade—that is, the true bottom grade of the canal as it should be.

The Court: At this time we will suspend for a few moments.

(Short recess.)

Mr. Lytle: May I have the last question and answer, Mr. Reporter?

The Court: Yes.

(Testimony of Hubert F. Terhune.)

(The last question and the answer thereto were thereupon read.)

Q. (By Mr. Lytle): Along that section of the canal which you said was lower than the normal grade of the bottom of the canal, what fill or dirt was put into that section?

A. That was the dirt that was pushed off of the bank side over into the canal by the Reclamation's own bulldozer.

Q. Was that the dirt that you have heretofore stated was just in there in its loose state as it fell?

A. That is right.

Q. I have here two pictures, Plaintiffs' Exhibits 28 and 29. Those pictures purport to show——

A. Well, No. 28——

Q. Just a minute, Mr. Terhune. ——those pictures purport to [165] show the condition following the first break. Do you recognize the locale?

A. No. 28 appears to be just upstream from the break, as there is a little waterfall there or a shelf that had washed that very favorably compares with the little shelf that was there when I arrived there.

Q. And 29?

A. And 29 shows to be opposite the break, showing mostly the bank side and not the fill side of the canal, I would say almost opposite the break and just below this little waterfall, or just downstream from this little waterfall, possibly 75 feet or less.

Q. Referring again to 29, that fault or sort of stair steps in the bottom, does that indicate the stratum that you described earlier in your testimony?

(Testimony of Hubert F. Terhune.)

A. I would say it does. It looks very similar to the strata of material that I was trying to define.

Q. On 28 does that disclose the type and nature of the hillside bank and bottom of the canal?

A. Yes, to an extent. The bottom is pretty well covered with water here and it doesn't show much of the bottom formation, but what little you can see of the bank formation looks similar to the bank formation.

Q. And can you tell us what the bank formation was at that point? [166]

A. Well, on the bank side you had your silt and soil, and so on and so forth, on top, and then as you came down you would get your stratas of hardpan, as you came on down you would hit those stratas of sandstone.

Q. And between the strata of hard sandstone, what was that?

A. Well, I didn't examine that particularly, but it looked more or less like a kind of a sandy-natured soil, and then as you came on down you come to your brown sandstone.

Q. Did those strata of what you called the hardpan contain any gravel?

A. I couldn't say whether they did or not.

Q. Very well. Can you take either 28 or 29 and show where you cut the trench or key for the core?

A. Well, no, not hardly, because 29 comes closest to it, but that section of bank which you can see is washed here, was all washed away, and the core trench would have been partly in this section of

(Testimony of Hubert F. Terhune.)

bank here that is still standing. That was pretty badly washed. And on 29—I would say you really couldn't show the location of the core trench on either 28 or 29, any more than just the—No, I don't believe you can show in those two photographs.

Q. Where was that core with respect to the slope of the outer bank?

A. Of the outer bank? From the toe of the outer bank?

Q. That is, the canal slope of the outer bank?

A. Inside the ditch, or outside? That is, from the inside of the canal or the outside toe of the canal?

Q. Well, I am just asking where it was with respect to the canal slope on the outside bank?

A. Well, it was possibly——

Q. Just your estimate on that?

A. I would say 40 feet from center line of the canal outward.

Q. Then that would take it——

A. That would place it under the embankment at perhaps—It perhaps would be about centered under the top of the embankment as it now stands, or as it stood when we left it.

Q. Yes. With respect to both Exhibits 28 and 29—Strike 28. With respect to Exhibit No. 29, would the core which was put in at the time of the repair following the first break be further in the foreground of that picture or is it within the picture itself, about the point?

A. I presume it probably would be in the picture at that point. It looks like that this photograph probably takes in enough area to give you between

(Testimony of Hubert F. Terhune.)

39 and 49 feet from the center line of the ditch, which would catch the core, perhaps.

Q. And, referring again to 29——

The Court: You mean 28?

Mr. Lytle: 28, your Honor, yes—at the top of what appears to be the outer bank of the canal shows a light area. What is that? [168]

A. That is what I don't know either.

Q. Is that the roadway on the top?

A. That would be the roadway, but what makes it show up so white I don't understand. I notice it shows up almost like snow on here.

Q. And below that white area there is exposed quite an area of ditch bank. Was there any evidence of any core in that old bank?

A. No, sir, not where we were.

Q. And does that disclose the area in which you made your key or slot for the core?

A. Well, I presume it would. When you removed this spoil bank here that is partly washed, the core would be right under that location, because this shows approximately the entire road on top, which would be somewhere near where the core would be.

Q. Will you state again—That is all with that exhibit.

Mr. Hess: May we see this exhibit, please? I just want to identify it.

The Court: Go ahead.

Q. (By Mr. Lytle): Will you state again the width of the cut or wash made there by the water as a result of the first break?

(Testimony of Hubert F. Terhune.)

A. I would say perhaps about 15 feet wide or so at the bottom and about 50 or 60 feet wide at the top.

Q. How far back on the downstream side from the break did you [169] work in making the fill for repair?

A. Possibly—Possibly 50 feet, 40 to 50 feet, on the downstream bank was removed.

Q. Did you remove the top of that bank?

A. The entire bank.

Q. Who designated the point at which you should start removing—or, rather, at which you should end removing from the break? A. Mr. Gordon.

Q. Then how about on the upstream side?

A. The same is true there. Mr. Gordon determined when enough material had been removed that the bank was satisfactory.

Q. As you made that fill, just describe your mode of operation, Mr. Terhune.

A. Well, the particular fill, as it was constructed—and of course I only played one part in the actual construction of the fill. The work that I actually done was providing the earth, mostly, that was taken out of the old spoil bank up onto the new bank, while the other tractor was working on top, placing rock and spreading out the dirt that I shoved up, was the particular job at the time.

Q. Will you explain what you mean by “spoil bank”?

A. Well, it was material that was taken out of

(Testimony of Hubert F. Terhune.)

the old ditch bank and placed in the break so as to have it a return for the ditch bank as we piled it up.

Q. You just took it out and stock-piled it? [170]

A. And stock-piled it, that is right.

Q. And your operation would be just what?

A. I was mostly shoving up out of this spoil bank, and the other 'dozer was working on top.

Q. And what 'dozer was working on top?

A. The Clowers Brothers' bulldozer.

Q. Was that dry or wet material in the stock pile?

A. The stock pile was pretty well dried out to a point to where for compaction purposes, why, it looked like it was almost perfect.

Q. You would 'doze it up on top of the fill and then, as I understand, Mr. Clowers' outfit would spread it?

A. Spread it out and mix it with the rock that the trucks were hauling in.

Q. And would any compaction other than the traffic of the machinery itself——

A. That is right, no other compaction there except the traffic of the machinery working there.

Q. On this night before the second break I believe you stated the water came down into the canal along where you were working?

A. Yes, sir.

Q. Was the canal at that time without sufficient freeboard to carry the water?

A. That is a question that I don't believe I could

(Testimony of Hubert F. Terhune.)

answer, because, not knowing how high the bank was actually above the [171] bottom grade of the canal, I wouldn't have any way of knowing exactly what——

Q. It didn't carry the water?

A. It didn't carry the water.

Q. What happened?

A. It went over the top of the place where we were clearing.

Q. At that time was the new fill all on a level or even grade?

A. Supposedly a reasonably even grade, yes, perhaps a reasonably grade, across the top.

Q. Both at the downstream and the upstream ends?

A. Both at the downstream and the upstream ends. While the downstream end did have some material in on the end that had been piled by the trucks, and so on and so forth, the general contour of the grade was on a fairly even grade and, due to the topping of the water, did not appear to be not to exceed three or four inches lower on the downstream end, as the water was a little heavier on the downstream end by perhaps three and not to exceed four inches.

Q. To what depth did the water go over——

A. I would say to a depth of about three to four inches.

Q. What steps were taken to stop that flow?

A. There was one cat up on the top on the downstream side, and he made an attempt to try to push

(Testimony of Hubert F. Terhune.)

dirt across to build up the bank a little higher, but it didn't work out very well, as there was only one cat up at that particular time. [172]

Q. Where was your cat?

A. I had already shut down and was getting ready to go home at the time that the water was coming over the top.

Q. Where was your cat?

A. It was down over the bank—It would be the downstream side from the break—and it was probably setting off from the break about a hundred yards to where I was doing my service work.

Q. How far from the canal itself?

A. Possibly a hundred feet from the toe of the canal slope.

Q. Assuming that the canal was running north, then that would be a hundred feet east of the toe?

A. That would be a hundred feet east from the canal bank toe.

Q. Had you observed that wash in the land below the canal? A. I did.

Q. Where was your cat 'dozer with relation to that wash?

A. I would say about three hundred feet—if the canal was running north there, it would be north of the canal or downstream from the break and about a hundred feet east from the toe of the canal bank was where I was servicing.

Q. Did you experience any difficulty there in connection with your cat?

(Testimony of Hubert F. Terhune.)

A. Well, of course, as soon as the water started over, I had just completed servicing, and of course I immediately started up, and I believe Mr. Gordon was right there, too, and I think [173] we—I believe he told me to try to make the upstream side of the bank, and I immediately started up and crossed over on the slope of the canal bank that we had in, where the water was running over, up through the water and went on across and perhaps got 50 feet away from the wash, after crossing it, on the upstream side, and bogged down, was stuck there.

Q. Now, were you stuck on the canal or away from it?

A. I was probably 50 feet, if the canal runs north, east of the canal bank, the toe of the canal bank—I was probably 50 feet off of the bank and possibly 50 feet from the wash, which would be south according to the canal running north.

Q. Had any of the water that was escaping from the canal at that time been on this spot?

A. No, there hadn't.

Q. What caused you to get stuck?

A. It was soft. It appeared to be very wet.

Q. I call your attention to a drawing or tracing on the board, which is Plaintiffs' Exhibit No. 82, and ask you if you recognize that part of the drawing indicated as the wash?

A. That would be the washout there (indicating)?

Q. Yes. A. I do.

Q. Mr. Bailiff, is there a pencil there?

(Testimony of Hubert F. Terhune.)

The Witness: I have one right here.

The Clerk: Here. (Hands a pencil to the witness.) [174]

Q. (By Mr. Lytle): Can you indicate on that exhibit about where your tractor 'dozer was stuck?

A. The scale of this is one inch to 50 feet, is that right? It says here on the map, "Canal Bank Road"— —

Q. And just put a cross with your initials.

(The witness thereupon marked upon Plaintiffs' Exhibit 80 as directed by counsel.)

Q. You may leave that pencil right on the rail. Did you observe any trees along the canal on the valley side?

A. Yes, I believe there's two cottonwoods still standing there, although we did knock out, even, one or two small cottonwoods.

Q. Can you state whether or not there is one on either side of the place where the break occurred?

A. There was at the time that I left there, yes, sir.

Q. Yes. Where was your tractor 'dozer with relation to either one or the other of those trees?

A. When it was stuck?

Q. Yes.

A. It probably would have been a little bit south and east of the tree on the upstream side of the break. I don't actually recall the tree in connection with being stuck, but the location, as I remember, of

(Testimony of Hubert F. Terhune.)

the tree is where I would place it, about, at this moment.

Q. Now, after Mr. Clowers' outfit had endeavored to stop the [175] flow of water by spreading earth on top of the fill did he have any success in stopping the water with that operation?

A. No, sir, he did not.

Q. What then did he do?

A. They went up to the cofferdam and started to plug that back so that we would have a cofferdam across and shut the flow of water off.

Q. Who do you mean by "they"?

A. Mr. Clowers, Clowers Brothers.

Q. They did that?

A. That is right.

Q. Just what did they do with respect to that cofferdam? What was their operation? Where did they get the earth?

A. The earth came out of the original old fill bank which was on that side, which was quite high, and by working out of the side of that bank they managed to get material close by to plug the cofferdam.

Q. Were they successful in that operation?

A. Yes, they were.

Q. As a result of the work at that point were they able to plug the canal so as to stop the water coming in at that section?

A. That is right.

Q. About how much freeboard did that have?

(Testimony of Hubert F. Terhune.)

A. As they replaced the cofferdam, how much freeboard was [176] on it?

Q. Pardon?

A. Do you mean as they replaced the cofferdam, how much was the freeboard?

Q. Yes, after they quit work on it?

A. Oh, possibly not to exceed two or three feet.

Q. Then what became of the water on the downstream side of this plug?

A. It continued to flow over the bank for quite some little time until that point of the operation is where my rig got back up on top and the two of us started to building the dike up, which we soon had it stopped going over the top.

Q. Did it flow and drain on down through the canal?

A. Well, there was quite a large volume of water stayed right there in the canal right opposite the break while we were working.

Q. From the time the water was plugged in the canal, from that time on how long were you there?

A. I stayed there until about twelve-thirty, I would say. That would be twelve-thirty a.m.

Q. Yes. About what time was it when Clowers succeeded in plugging the canal on the upstream side?

A. Well, it seems to me like that it should have been, according to the time of year it was—I don't believe it was very dark yet. It seems to me like it was halfway [177] reasonably light, although it was

(Testimony of Hubert F. Terhune.)

getting dusk—I would think it would have been about nine-thirty.

Q. How long after he had plugged the canal did the water continue to run over the fill at the point of the subsequent break?

A. I don't believe it continued to run over more than an hour afterwards, if quite that long.

Q. During the hour had you and Clowers continued to build up the fill?

A. That is right; we continued to build up from—I continued to build up on the fill until I went home at twelve-thirty, or about there.

Q. During all that period of time had water remained in the canal?

A. That is right.

Q. Below the plug?

A. Yes, sir, below the cofferdam; in other words, opposite the place that we were working.

Q. Did the surface level of the water below the plug appear to be lower or did it stand at about the same level?

A. It stood at about the same level, as near as I could tell in darkness.

Q. Do you know what caused that?

A. No, sir, I don't.

Q. You mentioned earlier in your examination that the [178] operator of the Reclamation Service cat came from the hill or mountain side of the ditch down into the canal.

A. Yes, sir.

Q. How long have you operated machinery of this type?

(Testimony of Hubert F. Terhune.)

A. I have spent about twenty-four years at it.

Q. I presume that during that period of time you have operated over all sorts and types of terrain?

A. That is right, sir.

Q. From your experience in operating machinery of this type, can you say whether or not one coming down a slope as steep as the slope on the hillside bank of the canal would come down free or would come down with a load to retard his progress?

A. That is right, he would probably come down with a load to retard his progress.

Q. If he came down with a load what would happen? Where would that dirt be?

A. That dirt would—he would dispose of it after he got to the bottom of the ditch.

Q. That was about how far below the point of the break?

A. Oh, possibly 150 feet or thereabouts downstream from the break.

Mr. Lytle: I think, your Honor, this would be a good point to break this examination.

The Court: All right. Recess until a quarter of two. [179]

(Whereupon, at 12:05 o'clock p.m., Thursday, June 10, 1948, a recess was had until 1:45 p.m.)

Afternoon Session—1:45 P.M.

HUBERT F. TERHUNE

thereupon resumed the stand as a witness in behalf of the plaintiffs herein and was examined and testified further as follows:

Direct Examination

(Resumed)

Mr. Lytle: May we have the last question and answer read?

The Court: Read it.

(Last question and answer thereto were thereupon read.)

Q. (By Mr. Lytle): At or about that point had there a way been constructed or prepared for coming out of the ditch onto the valley bank?

A. Yes, there had.

Q. In going out of there did they just go up the bank or——

A. They had a sort of ramp cut on an angle going up on the bank. It wasn't a very high bank at that particular point, didn't require too much ramp.

Q. Yes. I believe that a while ago I left your cat stuck in the mud.

A. Yes, sir. [180]

Q. How did you get out of there, or did you get out?

A. Well, we used Mr. Clower's winch truck and with the power of the cat itself and the winch truck we pulled it right straight on ahead through.

(Testimony of Hubert F. Terhune.)

Q. Do you know who it was that assisted in the work of getting your truck out?

A. Did I know the people who assisted?

Q. Yes.

A. No, I wasn't very well acquainted at that time and I can't say that I even knew the very people that helped. I know that it wasn't just the Clowers brothers. It was someone else.

Q. Some people who were there?

A. That is right.

Q. What time did you leave that night after you had put the fill up to the point where no water was running over?

A. I would say about 12:30 a.m.

Q. At that time was the plug on the upstream side of the bank still withholding the flow of the canal?

A. Yes, sir, it was.

Q. Now, with respect to the water in the canal below that plug and along the new fill, about how much freeboard was there at the time you left?

A. At the time I left I would say there was approximately two feet, a little more or less.

Q. Uh, huh. [181]

A. Not to exceed, I would say, two feet and a half, but it would be more than a foot and a half, because we was quite a little ways to water.

Q. When you left did you take your equipment?

A. No; I just parked it down off to the side there.

Q. Did you return the next day?

A. I returned the next day reasonably late—oh,

(Testimony of Hubert F. Terhune.)

I should think probably eight o'clock or eight-thirty next morning.

Q. What was the condition that you found them?

A. There was a hole completely washed through the bank again.

Q. How?

A. There was a hole washed through the bank again on the valley side.

Q. Where was that hole with respect to the hole that had been washed through by the first break?

A. It possibly, from the first break, possibly would have been 75 feet from the first break to the second break.

Q. You mean the hole that was washed?

A. That is right. If I understood the question right, I believe that would be the answer I would give. Do you mean the hole that was washed through the first time?

Q. Yes.

A. And to the hole that was washed through the second time?

Q. Yes.

A. Yes, I would say that there was possibly 75 feet between [182] the two holes.

Q. Taking into consideration the upper side of the hole, that is, the upstream side of the first hole, how far down would you say was the upstream side of the second hole?

A. I don't believe I understand that.

Mr. Lytle: May I have 28? Will you give that to the witness, please.

(Testimony of Hubert F. Terhune.)

Q. Calling your attention again to Plaintiffs' Exhibit No. 28, which depicts the bank, that is, the lower bank of the canal and the upper end or upstream end of the break—now, how far from that point was the upper side of the break?

A. Possibly a distance of 125 feet, I would say, from the top side of this break here to the downstream top side of the bank on the other break.

Q. To the downstream side of the new break?

A. That is right, to the extreme downstream bank that was left standing.

Q. And how wide was that second break?

A. Well, as I recall, it probably was about, oh, ten or twelve feet wide on the bottom, with a slope out on each side to, oh, possibly thirty feet at the top—maybe a little bit more; I would say thirty or thirty-five feet at the top, somewhere around twelve or fifteen at the bottom.

Q. Where was the break with relation to the fill that you had worked on following the first break?

A. Right off of the downstream end, probably within—the center of the break was perhaps within twenty-five feet of the downstream end of our fill.

Q. In doing work on the ditch bank following the first break did you have occasion to drive your cat 'dozer along on top of the bank?

A. Yes, I did.

Q. Did you observe any difference in the fill, the operation of your truck, leaving the old bank as you came onto the new fill?

A. Yes, there was a——

(Testimony of Hubert F. Terhune.)

Q. What was that?

A. There was a soft condition off the downstream side of our fill that we had put in. It was pretty hard to really determine what was happening, because it particularly started being soft that night as we were working in the dark. It was pretty hard to tell exactly, but we could tell that we were hitting soft ground.

Q. When you returned the morning after the second break did you observe whether the new fill was all intact or whether it had been——

A. Yes, I would say that practically all the new fill was intact, with the exception of a little bit of new stuff on top, which you can't compact, which would probably amount to two or three or four inches on top that was gone, but as far [184] as the end, I presume it was reasonably close to the end that we had left on.

Q. Did I understand that this second wash flared from the width at the top to the bottom, how much?

A. I would say about thirty to thirty-five feet at the top to twelve or fifteen at the bottom, just a V-flare.

Q. How far did you work back on the old bank in repairing the second break?

A. On which end? Downstream or——

Q. On the downstream end?

A. The downstream end? We were probably shoving dirt from back a hundred and fifty feet.

Q. How far back did you work on the upstream side of the new break?

(Testimony of Hubert F. Terhune.)

A. Well, I used the carryall in that vicinity after the second break and we went quite a way back, possibly four or five hundred feet, and robbed dirt off of the bank in back in order to bring into the fill.

Q. How far did you cut the new fill back in filling in the second break?

A. I didn't cut any back in the new fill myself personally.

Q. Did you observe——

A. No, I can't say. I can't say exactly what that would be.

Q. You are not in a position to state. In repairing the second break on the downstream side did you cut down on the [185] bank there at or about the point where the first fill had ended?

A. Well, that particularly, as I remember, they were using a dragline there to excavate the bank below the break on the downstream side, and as far as I can remember now I believe all preliminary work was did with the dragline, and consequently I wasn't right there to watch it or didn't know exactly what was taking place.

Q. Did you have any occasion to observe the condition of the soil down there?

A. No, not to the point that I did on the first, original break.

Mr. Lytle: That is all.

Cross-Examination

By Mr. Hess:

Q. As I understand, Mr. Terhune, on the night of

(Testimony of Hubert F. Terhune.)

the 14th—that is when this break first occurred—you arrived there about eleven o'clock with your equipment?

A. I don't know what date it was, sir, but I arrived of a morning about eleven o'clock.

Q. I mean in the morning, yes, eleven in the morning.

A. But I don't know what date in July that was.

Q. Did you understand that that was the first day of the break?

A. I don't believe that I did, no. [186]

Q. You don't know whether it was or was not?

A. I wouldn't say whether it was or was not the first day of the break.

Q. And who was working there when you got there, Mr. Terhune?

A. Well, as I recall, the Clowers brothers were there with their rig, and, if I remember rightly, I believe the Reclamation had their D-7 there and there was a D-4 there—whether it was there at that particular time I couldn't say for sure—and I believe they also had moved in a small dragline. I believe that was on the job at the time I arrived.

Q. And were there a number of men working there with shovels, and things of that nature, by hand?

A. There seemed to be a good many men around, perhaps, in the vicinity, that were hand laborers.

Q. And were they all working, would you say, very diligently to try to get this work accomplished?

A. Well, at that time—at that particular time of the break I guess they were doing the best they

(Testimony of Hubert F. Terhune.)

could. It was kind of haphazard working right at the very time of the beginning, because room was scarce, but I never took any particular notice as to what their particular job was.

Q. But they were working as fast as the job would apparently permit there?

A. I would say that they were progressing, yes.

Q. And you think this gap there, the first break, was about [187] fifteen feet wide, would you say, at the bottom?

A. That is right.

Q. And sixty feet at the top?

A. That is what I would say.

Q. That is, at the first break?

A. That is right.

Q. And you testified that they were moving the loose materials out of the bottom of the canal when you got there?

A. That is right, yes, sir.

Q. And how far upstream from the break were they removing that loose material?

A. I would say about 150 feet.

Q. And down below, downstream?

A. Downstream, possibly not more than fifty feet.

Q. But they were moving that out, too, were they not?

A. That is right.

Q. Cutting as deep for the sort of material that appeared as they could?

A. That is right.

Q. And in the preparation for the making of this fill to repair the break, as I understand it, you cut and excavated a trench?

(Testimony of Hubert F. Terhune.)

A. That is right.

Q. You cut and excavated a trench about how wide in the bottom? [188]

A. It would be thirteen feet, with my 'dozer that I had at that time, on the top.

Q. It was cutting at least that wide?

A. It was cutting at least that wide.

Q. And after they cut all the loose material off how deep were they cutting down in the bank?

A. We cut down, I would say, from two to four feet with the 'dozers.

Q. And from the ends where the break had occurred it was dug out by others that were working on the job—on the lower end you suggested, I think, about fifty feet, was it?

A. I should say about fifty feet on the downstream end.

Q. And then your trench went into that bank?

A. Yes, sir.

Q. And then the trench also went into the upstream bank. They had removed that about how far?

A. I would say about twenty-five or thirty feet upstream.

Q. And it seemed to be good, solid material there? A. It seemed so.

Q. And then you stated that they were taking that material out and building it for a stock pile?

A. Yes, sir.

Q. They were setting it out away from the bank and building it for a stock pile?

(Testimony of Hubert F. Terhune.)

A. Yes, sir. [189]

Q. Then they were hauling in—there was coming in by truck, you described, other material?

A. Yes, sir.

Q. That was gravel material, was it not?

A. Gravel, and some earth, I believe, too.

Q. Gravel and some earth. And you said that the material that had been removed out, by the time that you were putting it back in apparently appeared to you to be perfect material for a mix?

A. That is right.

Q. With the gravel that they were putting in?

A. Yes, sir.

Q. And it was mixed and put in on this trench and in building up the embankment; that is correct, is it not?

A. That is right.

Q. And I will ask, if you will remember, then, your 'dozers moved over the top of this as this would be put in to impact it and pack it down, is that right?

A. Yes, sir.

Q. How many 'dozers were passing back and forth over that?

A. There was one all the time working up on top, and sometimes there were two of us on top.

Q. And how much would those 'dozers weigh?

A. The 'dozers I had at that time and my rig, according to the Army specifications, would weigh about 46,600.

Q. And what would the other weigh? [190]

A. About three tons lighter.

(Testimony of Hubert F. Terhune.)

Q. I will ask you whether or not a cofferdam had been put in and a pump put in and a hose or hoses put down in there, in places where this wasn't compacted too solid—that is, the material—that the hose was used to impact that when you ran over it?

A. They had a pump in upstream and it was setting, as you say, at the cofferdam, and they had a pipe line down, and I would say I don't believe they found it necessary to use it very often, although I believe it was used a few times.

Q. And from your experience it appeared to you that that was a perfect compaction and mixture as it was put in?

A. I would say it was perfect, yes.

Q. And, as you have described it here, in spite of the fact that water flowed over that, when you talk about this overflow, when you worked until something—I believe it was about twelve-thirty, was it, that night?

A. That is right.

Q. —when you got back there the next morning the break—that hadn't caused much breaking or washing away of the top of the embankment that you had put in there; is that right?

A. No, only about three or four inches, which you can't help.

Q. And this other break, you state, was some seventy-five feet below the downstream end of the embankment that had already been put in? [191]

A. No, sir, I didn't say that.

Q. Well, just straighten me out.

A. About twenty-five feet.

(Testimony of Hubert F. Terhune.)

Q. About twenty-five feet; but, in other words, it was no part of the fill that had already been put in? A. I would say no.

Q. And I will ask you this question, whether or not, as that had washed away, the second break, whether or not both ends of your tunnel, that is, on the upstream and lower ends, were not touched—that is, your tunnel on the bottom?

A. I don't believe I get the question.

Q. Trench. I don't mean tunnel. I mean the trench you made.

A. For the core, you mean?

Q. For the core, yes, material.

A. No, sir, there were no indications of it being washed into that.

Q. At no time during the second break?

A. Yes.

Q. It held on both ends?

A. It held on both ends, the dike that we had put in.

Q. Now, then, when you have been talking about core, you are talking about the material that was being used, are you not? That is what you mean?

A. I presume that would be, your term of it would be, the actual core, the material used, not the actual trench dug. [192] The trench would be the trench, and the other core.

Q. Yes. You stayed there for the repair and clear through the repair of the second break?

A. That is right.

(Testimony of Hubert F. Terhune.)

Q. And, of course, after the repair was made of the second break that has at all times held since that time?

A. Yes, that is right, as far as I know.

Q. Now, then, you have located on that map the Caterpillar that was stuck, I believe, by putting your initials "H.T.," I believe, there, Mr. Terhune?

A. Yes.

Q. Would you step down with your pencil and place where you think the tree was, the little tree, whereby the cat was.

A. I don't really exactly connect the tree with being stuck, but I believe the tree would set right about there (indicating), the best that I can remember, in the——

Q. That is right near where your cat was?

A. That is right. I would say I was probably anywhere from twenty-five to fifty away from the tree; I don't believe much further than that.

Q. Yes. You may be seated. And that, as you point out, is a good deal lower down toward the valley than the lateral ditch that was——

A. Yes, that is below a lateral ditch.

Q. It was below the lateral ditch. Now, these little cottonwoods [193] that you speak about, that you mention, some of them undoubtedly have been taken out with your bulldozers? A. Yes.

Q. That was all below that lateral ditch, wasn't it?

A. No, I believe that I took out about two small cottonwoods that were above the lateral ditch.

(Testimony of Hubert F. Terhune.)

Q. How far above?

A. Oh, I believe it would be about ten or fifteen feet straight in, up the bank.

Q. How big were those trees?

A. Oh, about four inches in diameter, I would say, at the base.

Q. How high?

A. Oh, about ten or twelve feet, something of that nature; fifteen at the most.

Q. But it was in the field where you got stuck?

A. It was in the field where I got stuck, yes, sir.

Q. And that was just a little, as I understand, to the upstream from where the flow had gone through from the first break?

A. That is right, sir.

Q. As I understand, you were, then, not present when the second break actually occurred?

A. Yes.

Q. That your first observation of it was that next morning [194] when you got there on the job?

A. That is right, yes, sir.

Q. This——

The Court: Now, I think there is confusion in the record. As I understand it, there are three breaks, is that correct?

Mr. Hess: Not to our knowledge, your Honor. It is wholly new to me if there were three breaks.

The Court: Well, then I don't understand the testimony. He talks about his not being there at the second break. I thought his testimony here before was that he was there.

(Testimony of Hubert F. Terhune.)

Mr. Hess: Well, if your Honor please, right while it happened. He came there in the morning, as I understand it. As I understand the testimony, there was an overflow of water that came over the top, but nothing broke out, and that wash had been off of the top of the embankment—loose dirt, but nothing more. But this second break——

The Court: Wouldn't you call that a break when it came over the top?

Mr. Hess: Well, the water subsided. There was no break taken out. The water was up, as I understand it, something about eleven feet from the bottom of the break.

The Court: What confused me, the water broke over when he was right there. Now he says he wasn't there at all.

Mr. Lytle: If your Honor pleases, I think this witness——

The Court: After all, this is being done for my edification. [195] I am supposed to understand these facts when I get through, and if I don't understand them I am going to tell you.

Mr. Lytle: I think I could make a statement that would clarify the question.

The Court: All right.

Mr. Lytle: This witness was there the night of the last break until some time after twelve o'clock. Before he left the water in the canal was high enough that it was overflowing the lower bank of the canal. There was no breaking of the structure.

(Testimony of Hubert F. Terhune.)

They stopped the overflowing of the lower bank by building the bank up and they then had a freeboard. After having stopped that water and having the freeboard he then left. Later that night there was a break of the structure.

Mr. Hess: I will just say this—not that structure, but below. He said that he was——

Mr. Lytle: I am talking of the ditch structure.

The Court: I understand all that, but what causes my confusion, you were referring to this break of the structure as the second break. That is what is causing the confusion in my mind. As I understand it, water did break out over there while he was right there.

Mr. Lytle: That is correct.

Mr. P. J. Gallagher: No question about that.

Mr. Hess: Well, that was an overtopping——

The Court: Whatever it was, the water flowed out of the [196] canal in a way that it was not supposed to flow out.

Mr. P. J. Gallagher: That is correct.

Mr. Hess: I think that is correct.

The Court: It flowed over the top, and I would consider that a break, but everybody seems to be against me, so I adopt your ideas on that.

Mr. P. J. Gallagher: No, your Honor, I am with you on that. I think there were three—there were three distinct escapes of water from the canal.

Mr. Hess: I guess we had better have a new pre-trial order, then, agreeing to Pat's theory. We claim two breaks in the pre-trial orders. But, in any

(Testimony of Hubert F. Terhune.)

event, as an operator there in repairing this matter you regarded those as two breaks in the canal?

A. That is the way I termed it. I didn't connect the overflow as a break. I just termed that as an overflow. But the second break in the canal, that is what I termed as a second break.

Mr. Hess: I think that is clear to the Court?

The Court: Yes.

Q. (By Mr. Hess): You made some statement relative to that you had not observed any evidence of core in the bank. What did you mean by that?

A. There was no indication, when we started the excavation for the core bank in the sandstone material, that there had [197] ever been a core bank there before in any part of it, because we cored back beyond the washes on each side.

Q. I see. Well, these places where the breaks occurred were what is commonly known in construction work—that is in a cut, rather than a fill?

A. Well, sir, you can't determine that now from the lay of the ground. To look at the ground as it is and to look at the break as it came out, it would show to appear to any person that just observed it that way and not seeing it before that it was a surface bank, and, in other words, it was not a thorough cut, to look at it today. When the break happened—that is, I looked at it when the break happened and it did not appear to be a thorough cut.

Q. Ordinarily, then, what you call a cut is where a high piece of ground will be cut off or where a

(Testimony of Hubert F. Terhune.)

road or other excavation is made in the side of the mountain, you would cut that?

A. We call that a cut, yes.

Q. And the fills are where you take the materials, ordinarily, and build up the depressions and vales?

A. That is right. What I believe a thorough cut in construction is is where a cut goes clear through both banks.

Q. But, in any event, this is a cut in as far as the upper embankment is concerned?

A. It is a cut, definitely, as far as the upper embankment. [198]

Q. It is fully and completely a cut as to that?

A. That is right.

Q. And on the lower embankment, what you mean by that is you can't tell whether it was a partial cut or not?

A. No, you couldn't tell.

Q. And that is what you mean when you say that you did not observe any evidence of a core bank being made?

A. That is right.

Q. Or, in other words, a trench being made and the bank built up at this patch?

A. That is right.

Q. That is what you mean by that?

A. That is right.

Q. When you were working there on this you stated, in terms of hours that you had worked, that you put in some ten hours, I believe you stated, regularly?

(Testimony of Hubert F. Terhune.)

A. I stated about twelve, I believe, generally speaking.

Q. But you worked as much as two and sometimes three shifts a day?

A. Yes, that is——

Q. According to when the engineer felt that it was more necessary that your equipment was operating?

A. That is right.

Q. And you were there and did do that?

A. Yes, I worked more or less as he felt that I should. [199]

Q. Now, then, in the lower part of the canal, after the—when you were working on the embankment, we will take for what you designated as the first break, one of the 'dozers, after all this material had been cleaned out of the bottom and it had been scraped thoroughly and that loose material taken out, a 'dozer for the Government or for the Department was working on top and putting material into the bottom of the canal; is that correct?

A. Yes, sir.

Q. Putting silt in the bottom of the canal. And while you were working there, while all these people were working there, Mr. Grant Gordon, whom you have identified here, this engineer, was there at all times directing that work, was he not?

A. I would say he was there at all times when I was.

Q. And also part of the time Mr. Spofford was there with him?

A. That is right, sir.

(Testimony of Hubert F. Terhune.)

Q. You have done a great deal of construction work, have you not, heavy construction, in your period of time? A. Yes, sir, a great deal.

Q. You have worked on highways, railroad construction, airports—— A. Yes, sir.

Q. ——and earth-filled dams for water reservoirs? A. Yes, sir.

Q. And things of that sort? [200]

A. Yes, sir.

Q. That has been your work? A. Yes, sir.

Q. And I will ask you if, in your opinion, everything was being done from an engineering standpoint and from a workman's standpoint to repair that or both of those breaks thoroughly and with all speed possible under the circumstances?

Mr. P. J. Gallagher: That is objected to as calling for a conclusion of the witness.

The Court: Just a moment.

Mr. P. J. Gallagher: That is objected to as calling for a conclusion of the witness.

The Court: No, I don't think that is objectionable. I think it is not proper cross-examination.

Mr. P. J. Gallagher: We kept clear away from expert questions on direct.

The Court: You did not ask him any expert questions on direct and it is not proper cross-examination to ask him that. You can on your case in chief call experts of your own to testify to that if you want to.

Mr. Hess: Yes, your Honor.

(Testimony of Hubert F. Terhune.)

Q. You spoke something about that a tractor coming down the bank from the upper side would ordinarily be carrying a load to hold it back.

A. Yes. [201]

Q. Did you see any material that was in any load coming down the bank?

A. I wasn't watching the tractor at the time. I just stated how a tractor would come down.

Q. How it would come down? A. Yes.

Q. You don't know whether it did come down that way or what happened?

A. Well, if it didn't come down that way it would stand a chance of turning over down the bank.

Q. But you don't know how many times he did come up and down?

A. Well, I saw him come up once and come down once.

Q. But you didn't know whether he had any material?

A. I didn't know whether he had any material.

Q. As I understand, you had built up the top—that is, the water was down below the top of the bank on the first fill before you left that night?

A. Yes, sir.

Q. And how far did you say?

A. I would say about two feet.

Q. It could have been lower than that, could it not?

(Testimony of Hubert F. Terhune.)

A. You mean the bank could have been lower than that?

Q. No, I mean the water could have been lower than that?

A. Well, it possibly could have been two feet and a half, but I don't believe it was. Two feet would be my—— [202]

Q. You observed that yourself?

A. Yes, sir.

Mr. Hess: I believe that is all, Mr. Terhune.

Mr. P. J. Gallagher: Just a second.

Redirect Examination

By Mr. Lytle:

Q. How far on the downstream side of the canal were they removing loose material from the bottom of the canal?

A. In regards to the first break, or the second break, or what?

Q. Following the first break?

A. In the first break? The downstream side, I will presume about fifty feet, and a little excavation around one corner on the inside next to the water was did with a dragline for possibly, oh, an additional maybe—it might have been twenty-five feet around on the inside bank that was soggy.

Q. Now, how far downstream from the center of that first break was the core built?

A. How far downstream? It would be built to the entire end of the tractor excavation, which would have been about fifty feet.

Q. Do I understand that that fifty feet would

(Testimony of Hubert F. Terhune.)

be the entire length of the core? A. No, sir.

Q. Well, what was it? [203]

A. That would be the downstream side from about the center line of the break, then you will core back on the upstream side to probably thirty feet, thirty-five feet, something like that, from the center of the first break.

Q. And the second break occurred, as I understand you, below the lower end of that core?

A. That is right.

Q. About how far would you say?

A. I would say that about twenty-five feet would have been the center of the break.

Q. Well, there was some discussion with respect to whether this was a cut or a fill, and the upper or hillside bank was cut into the bank, as I understand it? A. Yes, sir.

Q. Then did you have to borrow the material to build the lower bank?

A. I don't believe I can understand. I believe I stated that the material that we used was what we dug out from the spoil bank and imported material that was brought in from various locations.

Q. Yes. In other words, there had to be material brought in from some source?

A. That is right. We also used material from the top of the ditch bank, particularly on the upstream.

Mr. Lytle: There is one question, your Honor, that I [204] should probably have asked this witness on direct examination. May I do so?

(Testimony of Hubert F. Terhune.)

The Court: Yes.

Q. (By Mr. Lytle): While you were there working the night prior to the first break—or the second break, did you hear Mr. Gordon or any other person there in charge of the work direct any of the workmen to go up the canal and do something with respect to the water?

A. No, sir, I did not.

Q. You didn't hear that? A. No, sir.

Mr. Lytle: That is all.

Mr. Hess: That is all, Mr. Terhune.

(Witness excused.)

Mr. P. J. Gallagher: Dean Johnston. [205]

DEAN M. JOHNSTON

was thereupon produced as a witness in behalf of the plaintiffs herein and was examined and testified as follows:

The Clerk: What is your name, please?

A. Dean M. Johnston.

The Clerk: Dean Johnston?

A. Yes, sir.

(The witness was thereupon duly sworn.)

Direct Examination

By Mr. P. J. Gallagher:

Q. Where do you live now, Mr. Johnston?

A. Twin Falls.

(Testimony of Dean M. Johnston.)

Q. And what is your occupation or business?

A. Construction foreman.

Q. Construction foreman?

A. That is right.

Q. On account of the fan going, will you speak a little louder. You formerly lived in Malheur County?

A. Yes.

Q. And were you formerly connected with the Reclamation Bureau?

A. Yes.

Q. Over what period of time?

A. Oh, I started to work in February, 1934.

Q. And what was your position at that time?

A. I started to work as a rodman.

Mr. Hess: I can hardly hear.

A. Started to work as a rodman.

Q. (By Mr. Gallagher): In the field?

A. Yes, sir.

Q. How long did you continue with them, Mr. Johnston?

A. Oh, I had two interruptions. When I went to college was one of them, and I continued—I started in February of '34 and worked until March 17th of '35, and then I went to school, then came back in June and worked until September, then I went to college another year and back and went to work in June and stayed employed until, oh, '46, I think it was.

Q. What I am going to ask you about, were you doing field work at the time this section of the canal was built along Mile Post 36 on the North Canal?

(Testimony of Dean M. Johnston.)

A. I was working on a survey party with Mr. Frizzel and Doolittle and Savage, I think.

Q. Did you have an opportunity to observe whether or not the construction of the canal at the point where it broke in '46, whether or not there was any core wall built in the lower canal line there at that time?

A. Well, that depends. The core line—now, there's no profile and slope sections that determine that, whether there was a core wall or not established there at that time. If the canal, in other words, due to the contour of the hill—[207] If the canal was—we tried to always locate the canal so that the lower embankment would be at water level a thorough cut.

Mr. Hess: Now, we move to strike that answer out as not responsive and this man not shown himself to be qualified to give that sort of an opinion.

Mr. P. J. Gallagher: Well, he hasn't finished the answer yet.

The Court: Yes, I think he has finished a sufficient portion of the answer so I can rule, and I will strike it out. He is talking about something that he was not asked about and likewise something that hasn't anything to do with this case, that they always did certain things. I am not interested in what they always did. I want to know what they did in this instance.

Mr. Hess: If the Court please, may we ask that the witness speak a little louder. We can't get his answers down here at all.

(Testimony of Dean M. Johnston.)

The Court: I don't really think I need to say anything. Go ahead.

Q. (By Mr. P. J. Gallagher): Dean, what I want to ask you is whether you know anything about—that is, of your own knowledge—whether or not there was a core wall built into the lower side of this bank over the area where the break finally occurred during the course of the construction? Is that, plain [208] to you?

A. Well, as to that particular location, there was a lot of canal out there when I was working during construction, and I couldn't say, I wouldn't like to say. The original survey would have to show.

Q. Well, if you don't know, why, you don't know.

A. No.

Q. Do you know where the break actually happened?

A. Yes, in the general vicinity. I was there at the time of the first break, just for a few minutes, walked up more or less for curiosity. I wasn't working on it.

Q. Do you have any recollection at all how that would enable you to testify as to whether or not in the construction of that particular piece of canal bank a core wall was built in?

Mr. Hess: Now, just a minute. He has already answered that question and he said he didn't know.

The Court: Well, he can ask the question.

A. Well, that question—at the time of the con-

(Testimony of Dean M. Johnston.)

struction there of that particular section of canal the contractor pioneered a road through there on center line for his big machine to come in there and excavate with a small Lorain shovel——

Mr. Hess: Now, we move to strike that as not responsive to the question, your Honor, and the witness not having shown himself to be qualified.

The Court: I don't think it has anything to do with qualification. I am not sure whether he is testifying from something he saw or heard, or anything of the sort. If he knows anything about this situation, why, he can testify to what he saw and what he observed at the time of construction, but that is all he can testify. I strike this present answer.

Q. (By Mr. P. J. Gallagher): Dean, do you understand what I am trying to ask you at all?

A. You wanted to know whether there was a core wall there.

Q. That is what I wanted to know.

A. Well, that can't be answered—I cannot answer whether there was a core wall there. I do know that the contractor pioneered a road. In other words, due to the contour of the hill he had to pioneer a road with a smaller machine to excavate there, and I know that was done because we went in there with a survey crew to get up to the line section where the machine was coming back on excavation.

Q. Now, did that have anything to do with

(Testimony of Dean M. Johnston.)

whether or not a core wall was built or was not built?

Mr. Hess: We object to that as not showing whether or not this man is qualified to answer the question.

The Court: No, this relates to observation. He answered it as though he thought it had something to do with it. What do you think it had to do with it?

A. Well, gentlemen, I have explained to you that the specifications—— [210]

Q. (By Mr. P. J. Gallagher): No, I don't care anything about specifications. You know what a core wall is? A. That is right.

Q. Now, if you don't know whether a core wall was built in there, all you have to do is to say you don't know. A. I don't know.

Mr. P. J. Gallagher: That will be all, then.

The Court: Cross-examination?

Mr. Hess: No cross-examination.

The Court: You are excused.

(Witness excused.)

Mr. P. J. Gallagher: If your Honor please, this testimony will be rather long and will involve examination of some number of witnesses, and if we may have about three minutes to pick out some exhibits it will probably save time.

The Court: Take a few minutes recess.

(Short recess.)

Mr. Lytle: We will call Mr. Merritt. [211]

ALLEN C. MERRITT

was thereupon produced as a witness in behalf of the plaintiffs herein and was examined and testified as follows:

The Clerk: Will you state your name, please.

A. Allen C. Merritt.

(The witness was thereupon duly sworn.)

Direct Examination

By Mr. Lytle:

Q. Where do you reside, Mr. Merritt?

A. At Boise, Idaho.

Q. How old are you?

A. Seventy years old.

Q. How long have you resided in Boise?

A. About eight years.

Q. Where did you reside prior to that time?

A. Salmon, Idaho.

Q. And how many years in that area?

A. I resided there from 1883 until 1938, and then I moved to Boise and back to Salmon and later to Boise.

Q. What is your occupation?

A. I am a civil and mining engineer.

Q. Where did you take your preliminary training?

A. Well, I have worked at the engineering business since I was a very young man, working in engineer crews, and later in charge of various types of work, various lines of construction [212] and design.

(Testimony of Allen C. Merritt.)

Q. And over a period of how many years have you been so engaged?

A. I would say fifty years actively.

Q. Will you state some of the works you have been on over the past few years?

A. Since 1943 I have been engaged in general civil and mining engineering practice with Mr. Raymond J. Briggs, of Boise, as associate engineer. Prior to that time I held the position of Commissioner of Public Works of Idaho for two years, and I practiced for two years previous to that, and previous to that time I also held the same position during 1938. Prior to that time I was engaged in various activities involving engineering work of different types.

Q. In the course of your experience have you had work in connection with any irrigation project?

A. Beginning in the early 1900s I spent a great deal of time investigating the water resources of several Northwest states, mostly on my own account, but in conjunction with the U. S. Geological Survey, in making stream measurements and a number of reports on various irrigation projects throughout the Northwest, beginning with 1904.

Q. In the course of your work have you found it necessary and have you from time to time made studies of geological formations? [213]

A. Oh, yes.

Q. Have you become acquainted with what has

(Testimony of Allen C. Merritt.)

been designated in this case as the North Canal of the Owyhee Project?

A. Yes, sir, I have looked it over, a part of it.

Q. Yes. When did you first go out to look over any part of this project?

A. I believe it was about the 8th—6th or 8th day of March that I went out to look at the——

Q. Of this year?

A. Of this year, yes, sir.

Q. Who, if anyone, accompanied you the first time?

A. Well, I believe there were three gentlemen representing the water users, and Mr. Gallagher, I believe, was in the party, and two—three of my associates were along.

Q. And who were your associates that accompanied you?

A. Mr. Briggs, Mr. Bouton, Mr. Karsten Bronken were three of them that were present at that time.

Q. Do you recall the names of any of the gentlemen who were with Mr. Gallagher?

A. Well, I can't recall their names. I can recognize them, but I don't remember their names.

Q. Do you recall the name of one as Mr. Jerry Sproul?

A. Yes, I believe I do.

Mr. P. J. Gallagher: Mr. Sproul, will you stand?

(Mr. Sproul, in the audience, here arose to his feet.)

(Testimony of Allen C. Merritt.)

A. That is the gentleman, yes, sir.

Q. Is that one of the gentlemen who accompanied you? A. Yes, sir.

Mr. P. J. Gallagher: Will Mr. Finley stand, please?

(A gentleman in the audience here arose to his feet.)

A. Yes, I recognize Mr. Finley.

Q. Where on this project at that time did you go, Mr. Merritt?

A. Well, we went up, I think, what is called King's Lane and which extended west up to the bank of the canal, followed the bank of the canal from the point where King's Lane intersects it along to a point, oh, somewhat above the cattle guard, for some distance, and then we traveled along the bank of the canal for some considerable distance and returned to the highway over another route. I am not able to name that route.

Q. Did you stop on that occasion to make any investigation or exploration? A. Yes, sir.

Q. Where on the project or on the canal did you stop?

A. At a point about 600 feet or such a matter north of the cattle guard we stopped and examined the point that had been broken and repaired there, where the bank of the canal had been washed out and repaired.

Q. Were there any physical evidences there that would enable [215] you to determine from observation that there had been a break and a repair?

(Testimony of Allen C. Merritt.)

A. Oh, yes, there was ample evidence of such.

Q. What were those indications?

A. There was quite a distinct wash in the surface of the soil that had been taken out, in below the point where the break had occurred, washed down to the supporting formation, washed the earth off.

Q. Were there any evidences on the other bank of the canal which would indicate recent work?

A. Yes, it was quite noticeable. The canal had been rip-rapped or surfaced with a mixture of gravel and earth to protect it or stabilize it for some distance along the bank of the canal, and of course immediately below that same point there was an embankment that supported the bank of the canal, a sort of a road along over it, which I presume was put in as a foundation to support the bank that was replaced.

Q. Were you here when Mr. Sproul was on the witness stand? A. Yes, sir.

Q. Are you able to identify the place to which he stated that he conducted you that day as the place which you investigated? A. Oh, yes.

Q. Now, that was at what time, Mr. Merritt? March what?

A. I think that was March 7th or 8th; 8th, I guess that was. [216] I believe it was the 8th. I don't recall.

Q. Were you again at this point?

A. Yes, sir, I returned to that point.

Q. When did you return?

(Testimony of Allen C. Merritt.)

A. I am not positive that I can give the exact date. It was along in the latter days of March, perhaps the 24th, 25th, 26th or 27th, about that date.

Q. Yes. Were you later at the point again?

A. Yes, sir.

Q. And when was that?

A. I was there April 1st.

Q. And at any other time?

A. I was there again on the 19th of May.

Q. When you were there on the 7th or 8th of March of 1948 how much time did you put in on that occasion?

A. Well, we were there several hours, looking over the canal and the evidences of the break.

Q. When you were there on the 7th or 8th of March of 1948, was there water in the canal?

A. No, the canal was dry.

Q. On that occasion did you and your associates make a study of the entire surrounding area as well?

A. To a certain extent, but we did that more thoroughly at a later date.

Q. At what time was that? [217]

A. I think it was about the 26th or 27th of March.

Q. When you were there on the 26th or 27th of March was there any water in the canal?

A. No.

Q. And how much time did you put in there on that occasion?

(Testimony of Allen C. Merritt.)

A. Well, I think we were there a good part of half a day, walking over and examining the surface in the vicinity and above the canal, and below the canal in the fields, and along the bank of the canal.

Q. Who accompanied you on the trip the latter part of March?

A. Mr. Bouton and Mr. Bronken, Karsten Bronken.

Q. At the time you were there on the 1st of April was there water in the canal, as you recall it?

A. No, sir, there was not.

Q. Who accompanied you at that time?

A. Mr. Paul Bronken, Mr. Bouton, Mr. Riggs, and Karsten Bronken were all present.

Q. About how much time did you devote on that occasion?

A. We arrived there about nine-thirty in the morning and left there a little before one o'clock, possibly about one o'clock.

Q. And on the 19th of May, when you were there, who accompanied you?

A. Mr. Bronken, Paul Bronken.

Q. You and he alone? A. Yes. [218]

Q. Now, on one of these occasions did you take some pictures of the area and different aspects of the area and the ditch and surrounding conditions?

A. Yes, sir.

Q. On what occasion was that? What trip was that?

A. On May 1st—or April 1st, I should say, I

(Testimony of Allen C. Merritt.)

took seven, made some exposures, seven photographic exposures.

Q. And then did you at another time take some?

A. Yes, later, when I came on at the 19th of May, I took some more.

Q. On the 19th of May was there water in the ditch? A. Yes, sir.

Q. In April of 1948, when you were there, did you take some photographs of the ditch itself?

A. Yes, sir.

Q. From the condition as you observed in the ditch at the time the photographs were taken, particularly with reference to the mountain or hill side of the canal, would you say there had been any material change in that formation over a period of many years?

Mr. Veeder: I object, your Honor, as the witness not having been qualified as an expert in geology.

The Court: Objection sustained.

Q. (By Mr. Lytle): In the course of your work over a period of years, what work involving the study and the practice with [219] relation to geological questions have you had?

A. Well, I have made a number of studies, geological studies, of the various rock formations of different sections of the country, comparing them with the reports of geologists and others acquainted with those subjects, identifying the various layers of stratification and other geological features.

(Testimony of Allen C. Merritt.)

Q. Did your duties in your official capacity with the State of Idaho require work in that line?

A. On numerous occasions, yes.

Q. What, in general, would that be?

A. Location of highways and drainage structures and drainage in connection with highway construction, a very common problem.

Q. Over a period of how many years have you had work involving geology and geological formations?

A. Well, I would say thirty-five or forty years.

Q. During the course of this work have you studied any texts or treatises in relation to geology?

A. Practically everything I can get my hands on, and I have a very complete library of that nature, which I make use of continuously.

Q. Can you name some of the authors?

A. Professor Kemp, of Columbia University, was perhaps the first instructor that I had. I have been in the field with him for more than a month at a time. George W. Fowler, Chief Geologist of the Anaconda Mining Company. I have worked [220] in the field with him. Dr. W. S. Ward, of the Colorado Fuel & Iron Company, former Chief Geologist for them and Chief of the Geological and Mineralogical Exhibit at the St. Louis Fair. I have worked under him for several years and did a great deal of work under his direction and for him. And the Colorado Fuel & Iron Company, the Anaconda Company, the American Smelting & Refining Company, the International Smelting Com-

(Testimony of Allen C. Merritt.)

pany, which is the Anaconda, and many others—I have made many reports covering geology and geological subjects in which their expenditures were involved and in which engineering projects were involved and in which geology would necessarily be a part.

Q. And will you give us, now, the names of the authors of some of the texts you have studied?

A. Oh, practically every author on that subject, I have made use of their texts. My library is practically full of every volume, and it don't seem necessary to name the authors particularly.

Q. How many volumes on geology do you have in your library?

A. Oh, probably twenty on geological subjects.

Q. In the course of your work have you had to make studies of areas of similar formation of that involved in this place on the Owyhee?

A. Yes, sir, that is quite common.

Q. Does that structure have any particular name? [221]

A. Well, I would say an old formation, tertiary and lakebed——

Mr. Veeder: We renew our objection, your Honor. We do not think the witness is qualified. It is true that he has read books and that he has associated with geologists. He has not indicated that he is an expert in the field and that his responsibilities entailed geological investigations. He has associated and worked with other people who

(Testimony of Allen C. Merritt.)

are geologists. I submit that is not qualified.

The Court: Well, it is a question of weight. I think that, having worked in the field, he is qualified *prima facie*. The question of the weight that I will give to his testimony will depend on what I think the qualifications show.

Mr. Veeder: He has not disclosed, however, your Honor, that he has worked in the field in connection with the construction of irrigation canals. I believe that that is a peculiar field and that would make quite a difference.

The Court: They are all geologists, it would seem to me. It is one field. I realize that you can split it up into petroleum and various other fields, but, as far as I am concerned, anybody that has worked in the geological field is qualified to give an opinion. As to how much weight I will give it is a different matter. Proceed.

Q. (By Mr. Lytle): At the time you made the examination and took the photographs was the hill-side bank of the canal exposed? [222]

A. Yes, sir.

Q. Did you make a study of the different formations and of the formations in that bank?

A. Yes, sir.

Q. From your observation, would you say whether or not there had been any material change in the formation of that bank over a period of years?

Mr. Hess: We renew our objection, your Honor, that the witness is not qualified, not a geologist.

(Testimony of Allen C. Merritt.)

The Court: Overruled. I don't think that college degrees in geology amount to anything. If anybody has worked in the geological field, then I think he has a right to testify. You may answer.

A. The formation, as generally accepted by geologists, is a very old formation of lakebed and wind-blown rocks, laid down by the water, eroded by wind and laid down again. It is not necessary to name the particular age or the times it was done. The exposure there indicates that very definitely.

Q. (By Mr. Lytle): What I am trying to find out, Mr. Merritt, if there has actually been any very material change in the formations from the month of July, 1946, and the time you visited them and made your study?

A. I don't see how there could be.

Q. At the time you made the examination and at the time you took the photographs was there any evidence of a wash in the [223] field or ground below the valley side bank of the canal?

The Court: He has already said that there was.

Mr. Lytle: Yes, that is right, your Honor.

Q. Did you make an examination specifically of that wash? A. Yes, sir.

Q. What would you say as to that wash having been a very recent one or a wash of quite a number of months or years?

A. Well, the banks of the wash were somewhat eroded and tumbled down. They evidently had been more or less vertical and had caved off a little. A comparatively recent origin.

Q. I call your attention to the photograph, the

(Testimony of Allen C. Merritt.)

picture and the enlarged picture, on the upper left-hand corner of the board—the smaller one of which is Plaintiff's Exhibit No. 79, your Honor—and ask if that is one of the pictures you took?

A. Yes, sir.

Q. Where were you standing when that picture was taken?

A. It was on the upper bank of the canal, just on the rim of the hill as it——

Q. Of the hillside?

A. Yes, as it tipped over.

Q. And over what area was the picture taken?

A. Well, according to my record, the direction from that point was north 10 degrees east.

Q. Did you personally take the photograph?

A. Yes, sir.

Q. And what did you use?

A. I used a view camera the size of that plant in the corner there.

Q. Does that truly represent the view from that direction as shown in your range-finder?

A. Pardon?

Q. As shown in the range-finder, that view-finder?

A. Oh, yes, that was focused on the ground before it was exposed.

Mr. Lytle: We now offer, your Honor, Plaintiffs' Exhibit No. 79.

Mr. Hess: We object to it, your Honor, as incompetent, irrelevant and immaterial, too remote. a

(Testimony of Allen C. Merritt.)

period two years from the time of the break, not showing the true condition of the area at the time of the break, no evidence showing that conditions were the same.

The Court: No, there is evidence showing that the condition was different. I think, again, that this goes to the question of weight and not of the admissibility. I think it is entirely in my discretion and I admit it.

(The photograph referred to, so offered and received, having previously been marked for identification, was thereupon marked received as Plaintiffs' Exhibit 79.) [225]

Mr. Lytle: Then may we proceed, your Honor?

The Court: Yes. It may be marked later. Go ahead.

Mr. P. J. Gallagher: Will we take it off and have it marked?

The Court: No; I said it would be marked later. Go ahead.

Q. (By Mr. Lytle): Calling your attention to the picture on the lower left-hand corner, when was that one taken? A. The same day.

Q. And where were you standing at that time?

A. On about the same spot as in the previous picture.

Q. And in what direction was your view-finder and lens pointing?

A. That was pointing north—I will examine my notes here—that is pointing north 70 degrees east.

(Testimony of Allen C. Merritt.)

Q. Does that picture take in the valley to the east of the point on the canal you were taking into study at that time? A. Yes, sir.

Q. In the distance, in the background, is a range of hills. What hills are shown there? What are those hills?

A. They are the mountains across the Snake River Valley, on the opposite side.

Q. Now, in connection with those two pictures and the actual study you made on the ground, are you able to give anything of the geological history and geology of the area, including the area covered by the ditch bank? [226]

Mr. Hess: We object to that as the witness has not shown himself to be qualified.

The Court: Overruled.

A. Why, I think I can. I would like to explain the photographs, or the purpose of them, if——

Mr. Lytle: Will you do so? May the witness approach the exhibit, your Honor? You will find on the rail there a pointer.

A. The object of this photograph was to show the course of the canal following the contour of these gulches and around directly below the camera, and also to show the dip of the bedding of the formation on this hillside where it has been cut with this draw or gulch. It shows the bedding dipping toward the valley.

Mr. P. J. Gallagher: Pointing now to Exhibit No. 79, Mr. Merritt?

A. That is this one (indicating).

(Testimony of Allen C. Merritt.)

Mr. Lytle: The bottom one is 79. The top one is 78.

A. This is the bank of the canal, with the road on the top, and the canal is shown just below it. Here is a draw, a gully, running in a very straight line——

Mr. Hess: I wonder if Mr. Merritt can stand back just a little, so we can see it.

A. Yes. Right across here is a gully that comes up toward the hillside. It may be seen somewhere in this point here, but generally toward this basin where the canal follows back [227] into the edge of these gullies. In the middle——

Mr. P. J. Gallagher: Pardon me, just a minute, Mr. Merritt. We were in error on those exhibits, your Honor. The top one is 79.

A. This is 79?

Mr. Lytle: And the bottom one is 78.

The Court: Well, that is the way they went in. 79, the one on top, has been introduced. The other one has not.

Mr. P. J. Gallagher: That is right. 78 is the lower one.

The Court: Go ahead.

A. In the center of this photograph is a rounded hill, and there is a draw extending southeasterly, then northeasterly, to a point where this little gully intersects the side of that hill. The gully forms a very straight line. The indications are definitely that there might have been some subterranean movement at that point, weakening the formation.

(Testimony of Allen C. Merritt.)

Mr. Lytle: Now, we will offer Plaintiffs' Exhibit No. 78.

The Court: Admitted.

Mr. Hess: If your Honor please, may our objection run, the same objection that we put in to 79, to each one of them, in order that—I did not get a chance to object to that before——

The Court: All right, you can take your objection.

Mr. Hess: All right. May I renew the objection that we put in to 79, if your Honor please? [228]

The Court: Yes, the same objection is made and overruled.

(The photograph referred to, so offered and received, having previously been marked for identification on pre-trial conference, was thereupon marked received as Plaintiffs' Exhibit 78.)

Q. (By Mr. Lytle): Is the enlarged picture an enlargement of the smaller picture which is made of Exhibit 78?

A. The same as this, yes.

Mr. Lytle: We now offer the enlargements of 79 and of 78.

The Court: I am going to treat these the same.

Mr. Hess: Our objection will go to all of them, your Honor.

The Court: Yes.

Mr. Hess: We do not object by virtue of the fact that they are enlargements.

(Testimony of Allen C. Merritt.)

The Court: I understand.

Q. (By Mr. Lytle): Referring to the top picture, the second one from the left, which bears on the enlargement number 10 and is Plaintiffs' Exhibit No. 70, when was that taken?

A. May 19th.

Q. Does that picture in any way help in the development of your theory with respect to Exhibits 79 and 78?

A. May I explain the—from this point on the canal——

Q. Pointing to about the center of 79. [229]

A. ——that picture was made to show a little more in detail this dipping formation and particularly where the canal cut that formation around that point of the hill.

Q. Now, you were pointing to Number 70, toward the center background of the picture. Now, where is that with relation to the canal?

A. This picture?

Q. Yes.

A. Well, that is the canal right along there, right through the center of it.

Q. Yes. Proceed with your explanation of that picture.

A. The dip of this formation conforms to the dip of the formation that is exposed in those washes directly below the canal very closely.

Q. You are referring now to those washes in 78?

A. Yes, sir.

(Testimony of Allen C. Merritt.)

Q. Where with relation to the strata in which you show the dip in Number 70——

A. This one.

Q. ——was the area or section of the canal which you discovered where there had been a break?

A. It was somewhat south of this point. Here is the point it was taken from, that point right there (indicating). The break was back here, directly under this cleared-off area, where the material was taken down into the canal to repair [230] it. The break was right below that.

Mr. Lytle: We now offer Exhibit Number 70.

Mr. Hess: We renew our objection as made to 79, to Picture Number 79.

The Court: The objection is noted and overruled

(The photograph referred to, so offered and received, having previously been marked on pre-trial conference for identification, was thereupon marked received as Plaintiffs' Exhibit 70.)

Q. (By Mr. Lytle): I call your attention now to the picture just below that, the enlargement bearing number 7, and being Plaintiffs' Exhibit No. 73. Where was that taken from?

A. That was taken from the bank of the canal, looking across the ditch at the upper bank in the hillside. The top of the hillside shows just in the top of the picture, and this is the bottom of the canal, right at the bottom of the picture (indicating).

(Testimony of Allen C. Merritt.)

Q. I see the figure of a man standing in there, with something held in his hand. Who is the man and what is he doing?

A. Mr. Paul Bronken, who is here. He is holding a leveling rod in his hand.

Q. What was the rod intended to exemplify?

A. As near as we could tell, what the flow line or the water line of the canal was. [231]

Q. And what did it show?

A. Well, the rod is seven feet long.

Q. Now, at that point in the canal and on that bank of the canal was the formation disclosed, exposed?

A. It is shown very clearly in this photograph here.

Q. Did you find any indication of the dip which you have explained in Exhibit Number 70?

A. This dip (indicating)?

Q. No, the second one.

A. This one here (indicating)?

Q. Yes.

A. I found this stratum here substantially at right angles to the dip shown in this photograph here (indicating).

Mr. Veeder: Your Honor, isn't there going to be a great deal of confusion in the record if the witness does not refer to the exhibit and in some way designate the relationship between the two photographs?

Mr. Lytle: Yes.

The Court: Yes, of course there is.

(Testimony of Allen C. Merritt.)

Mr. P. J. Gallagher: Well, we will straighten that out.

Q. (By Mr. Lytle): Now, I understand you to say that the dip in Exhibit No. 73, the bottom one, is at right angles with the dip disclosed in Number 70? A. Yes, sir, approximately so.

Q. Yes; and what would that indicate? [232]

A. It would indicate this is the bedding of the formation at this point here (indicating).

Q. I didn't get the answer.

A. This would indicate the bedding of the formation at this point to be approximately the same as at that point (indicating). As we call it, the strike of the formation would be perpendicular to the dip, or at right angles to the dip.

Q. Now, that stratum shown in Exhibit No. 73, how does that bear with respect to the course of the canal?

A. Practically parallel to it, so far as its strike is concerned.

Q. Does it also have a dip?

A. The dip is parallel to No. 70.

Q. To the dip in No. 70? A. Yes, sir.

Q. What is the nature of that stratum in 73 which shows the break there, where you now point?

A. There (indicating)?

Q. No, all through that whole stratum? What is the nature of that?

A. That is a very soft sand formation, sandy.

Q. Any other ingredient in it?

A. Well, there is some very soft sandstone in-

(Testimony of Allen C. Merritt.)

volved in it that is pretty well broken up, as at a point indicated opposite the leveling rod, at this point (indicating). [233]

Q. Were you able to determine the thickness or depth of that stratum as shown in No. 73?

A. It would be very difficult to determine the exact thickness, because it varies at different points, but I would say the average thickness might be from two to four feet.

Mr. Lytle: We now offer in evidence Plaintiff's Exhibit No. 73.

Mr. Hess: We object to it on the same ground as we objected to the picture Exhibit No. 79.

The Court: Objection overruled and the exhibit admitted.

(The photograph referred to, so offered and received, having previously been marked for identification on pre-trial conference, was thereupon marked received as Plaintiff's Exhibit 73.)

Mr. Lytle: Your Honor, it would help the witness, I believe, in testifying if we could be permitted to put a rather large pencil exhibit number on each one of those up in the background there.

The Court: All right, I will give you a few minutes and you can do that.

Mr. Lytle: Yes.

(Short recess.)

Q. (By Mr. Lytle): Referring to Exhibit No.

(Testimony of Allen C. Merritt.)

75 for identification, what does that picture show?

A. This picture here (indicating)?

Q. Yes.

A. That shows the wash that extended down from the break in the canal, looking up the wash toward the canal. The canal is right along that line (indicating).

Q. Now, calling your attention to the horizon there and to the background in the center of that picture, did you examine the area back of that?

A. Yes, sir.

Q. What did you find as to the lands back there?

A. Well, there is very much of a depression immediately back of that horizon there, forms a sort of a basin leading down to the low point probably at about the center of the picture, at that point there (indicating)—that is, leading eastward toward it.

Q. Did you form any conclusions as to any connection between that area and the draw as shown in No. 78?

A. This draw (indicating)?

Q. Yes.

A. Yes, sir, I think there is a very definite connection. There is that same draw as shown in 78, right here, and this is the point that this wash intersected it, about the center of the picture. There seems to be a series of gullies or drainage basins leading toward the valley on this bench and in the area back of the top of the bench shown in No. 79. [235]

Q. In that wash in Exhibit 75 did you find any

(Testimony of Allen C. Merritt.)

evidences of the stratum which you have described and regarding which you have testified as shown in Exhibit 73?

A. Yes, sir, they are very closely related, apparently exactly the same materials.

Q. Did you make investigations and take levels to ascertain if the strata as shown in No. 75 and in 73 conformed to the dip you found as disclosed in No. 70?

A. Yes, sir.

Mr. Lytle: We now offer No. 75.

Mr. Hess: We renew our objection, the same as made to the picture Exhibit 79.

The Court: Objection overruled and the Exhibit 75 is admitted.

(The photograph referred to, so offered and received, having previously been marked for identification on pre-trial conference, was thereupon marked received as Plaintiffs' Exhibit 75.)

Q. (By Mr. Lytle): Calling your attention to No. 76, where is that taken with relation to No. 73?

A. The camera was set at the same point where No. 73 was taken and turned around to look along the bank of the canal and up the canal.

Q. Does that 76 disclose the dip of the stratum as you have [236] heretofore described that dip?

A. Yes, sir, it does. It is shown right through the center of the photograph.

Q. The figure of the man standing at the left background, is that the same party who was in 73?

(Testimony of Allen C. Merritt.)

A. Yes, sir.

Q. He has the rod in his hand?

A. Yes, sir.

Q. Now, what is the height of the top of that stratum at that point?

A. It is at approximately the same height as the rock above the bottom of the canal, about seven feet.

Q. That dip inclines, as shown there, or dip in the canal, that is projecting which way, north or south?

A. South.

Q. Did you take measurements and make studies to see if there was any incline or dip of that stratum to the east?

A. Well, this point is the only place exposed until you get below the bank of the canal. There it is exposed again and easily identified as the same formation.

Q. What would you say as to the relation of the top of that stratum as shown in the wash and its location, elevation, in the ditch?

A. I would say that it follows practically an even plane right up the wash and right through the ditch into the bank [237] of the canal. Our measurements would indicate that.

Mr. Lytle: We offer No. 76.

Mr. Hess: We make the same objection, your Honor, as was made to the picture Exhibit No. 79.

The Court: Objection overruled and Exhibit 76 is admitted.

(The photograph referred to, so offered and received, having previously on pre-trial confer-

(Testimony of Allen C. Merritt.)

ence been marked for identification, was thereupon marked received as Plaintiffs' Exhibit 76.)

Q. (By Mr. Lytle): I call your attention now to Exhibit No. 69. What does that picture portray?

A. That portrays the wash at the point of the forks and runs back towards the canal. The bank of the canal is shown at the horizon.

Q. Is that the same wash that was shown in 75?

A. Yes, the point that it was taken from is right at the forks of the wash as shown in the upper center of 75.

Q. Did you, in the course of your work there, make, or under your direction have made, a drawing of that wash? A. Yes, sir.

Q. I call your attention to Exhibit No. 82 and ask you to state what that is?

A. That is a map of a stadia survey that we made to determine the boundaries of the wash. It was made by Mr. Bronken, who [238] previously testified.

Q. Now, I see pointing toward the top—the wash itself—I see pointing toward the top two sort of fingers. A. Yes, sir.

Q. Were there two channels to the wash up to that point?

A. Well, down to that point there were two channels.

Q. Well, yes, down to that point.

A. Below that there was one channel.

Q. Now, referring again to 69——

(Testimony of Allen C. Merritt.)

A. That point there was represented on the map by that point at the forks (indicating).

Q. The point in the center of 69 is the junction of the two prongs of the wash as shown in 82?

A. Yes, sir.

Mr. Lytle: We offer No. 69 in evidence, if the Court please.

Mr. Hess: We make the same objection as was made to the picture Exhibit No. 79.

The Court: The objection is overruled and Exhibit 69 is admitted.

(The photograph referred to, so offered and received, having previously on pre-trial conference been marked for identification, was thereupon marked received as Plaintiffs' Exhibit 69.) [239]

Mr. Lytle: I do not recall, your Honor, whether No. 82 was admitted. That was this tracing for——

Mr. Hess: Yes, that was admitted.

The Court: Yes, it is admitted.

Mr. Lytle: Yes.

Q. Now, I call your attention to the picture there marked No. 77. A. Yes, sir.

Q. Where was that taken?

A. That was taken at the north or downstream point opposite the break in the canal.

Q. Opposite or below, or where?

A. Just below the break, as near as I could tell where the break occurred. I couldn't tell exactly, but it was above the wash, as was indicated, somewhere in that vicinity.

(Testimony of Allen C. Merritt.)

Q. And in that No. 77 is there an evidence of the same stratum you have been discussing?

A. Yes, sir.

Q. And is that a prolongation of the stratum as shown in 73 and 75—No, no, not 73 and 75—in 73 and 76?

A. Yes, sir, I would say it is the same—evidence of the same stratum.

Mr. Lytle: We offer in evidence 77.

Mr. Hess: We object to this exhibit on the same grounds as made in our objection to the picture No. 79, if the Court [240] please.

The Court: The objection is overruled and Exhibit 77 is admitted.

(The photograph referred to, so offered and received, having previously on pre-trial conference been marked for identification, was thereupon marked received as Plaintiffs' Exhibit 77.)

Q. (By Mr. Lytle): I call your attention to Exhibit No. 74.

A. Yes, sir.

Q. Where was that taken with reference to either 77 or 73?

A. It was taken from the bank of the canal about 200 feet north of the north end of the break.

Q. And that would be the downstream side?

A. Yes, downstream from the break.

Q. Yes; and what does that show?

A. It shows the bank of the canal has been covered with a layer of earth and stabilized with a layer of gravel, a very complete job. Also, it shows

(Testimony of Allen C. Merritt.)

the crumbling of the upper bank or hillside bank along the canal.

Q. And what was that stratum along in there on the mountain side?

A. Up to this point about the center of the picture is evidently the same stratum, identical material.

Q. And approximately how high from the bottom of the ditch [241] did that stratum run at that point?

A. Well, at the center of the picture it is probably about two feet above the bottom of the canal, indicated at the left, lower left, in No. 77.

Q. And is No. 74 a prolongation to the north of the stratum shown in 77? A. Yes.

Mr. Lytle: We offer No. 74 in evidence.

Mr. Hess: We make the same objections to the introduction of this picture, exhibit, as was made to the picture Exhibit No. 79.

The Court: The objection is overruled and Exhibit 74 is admitted.

(The photograph referred to, so offered and received, having previously on pre-trial conference been marked for identification, was thereupon marked received as Plaintiffs' Exhibit 74.)

Q. (By Mr. Lytle): Calling your attention now to picture Exhibit No. 71, what does that depict?

A. It represents the canal at the point near the break with the water in it.

(Testimony of Allen C. Merritt.)

Q. When was that taken?

A. The 19th of May.

Q. And is that showing the same area disclosed in 73, 76, 74 [242] and 77?

A. Yes, sir, a portion of it.

Q. Is any of the stratum relating to which you have been testifying evident along the mountainside bank of the canal when the water is in it?

A. Just at the water line, yes, sir.

Q. So that I may understand, then do I understand you to say that the water level or water line is the top side or top line of the stratum?

A. Well, the stratum is not just exactly level.

Q. Yes.

A. It varies along that distance somewhat.

Q. And within variable, reasonably variable, distances how much does show above the water level?

A. Well, in some places about two feet or two and a half feet, and other places it is right at the water level.

Mr. Lytle: We now offer 71.

Mr. Hess: We make the same objection to receiving this exhibit as was made to the picture Exhibit No. 79.

The Court: The objection is overruled and Exhibit 71 is admitted.

(The photograph referred to, so offered and received, having previously on pre-trial conference been marked for identification, was thereupon marked received as Plaintiffs' [243] Exhibit 71.)

(Testimony of Allen C. Merritt.)

Q. (By Mr. Lytle): I call your attention to the picture No. 72 for the purposes of identification——

A. Yes, sir.

Q. Let's see, I wonder if you couldn't sit down. Turn your chair. What does that portray?

A. That represents the upper bank of the canal with water in it.

Q. At what point?

A. Right opposite the break.

Q. Is there any significance there evident to the eye?

A. The stratum is shown very clearly right at the water line.

Mr. Lytle: We offer No. 72 in evidence.

Mr. Hess: We make the same objection, your Honor, as was made to the introduction of Exhibit No. 79, the first exhibit.

The Court: The objection is overruled and Exhibit 72 is admitted.

(The photograph referred to, so offered and received, having previously on pre-trial conference been marked for identification, was thereupon marked received as Plaintiffs' Exhibit 72.)

Q. (By Mr. Lytle): I now call your attention to Exhibit No. 68 for identification and ask you to state what that portrays? [244]

A. That portrays the extreme westerly or upper end of the left fork or upstream fork of the wash caused by the break.

(Testimony of Allen C. Merritt.)

Q. And at that point did you find evidence of the same stratum relating to which you have been testifying?

A. It is shown very clearly right at the center of the photograph.

Mr. Lytle: We offer No. 68 in evidence.

Mr. Hess: We make the same objections as made to the introduction of the picture Exhibit No. 79.

The Court: The objection is overruled and Exhibit 68 is admitted.

(The photograph referred to, so offered and received, having previously on pre-trial conference been marked for identification, was there-upon marked received as Plaintffs' Exhibit 68.)

Q. (By Mr. Lytle): You testified that you had taken measurements and taken levels showing the course and dip of this stratum from the point where it is shown in the bank on the mountain side of the canal down to the point down in the wash as shown in No. 75. Predicated on your study and your measurements, did you make a drawing to show that and its relationship to the canal itself?

A. The drawing and the survey for that was made by Mr. Bronken under my supervision. [245]

Q. And the drawing was made under your supervision? A. Yes, sir.

Q. I call your attention to the top drawing on the board being brought to you by the Bailiff, being

(Testimony of Allen C. Merritt.)

Exhibit No. 80 for identification. Will you just tell the Court what that drawing depicts?

A. It indicates a cross-section across the canal at a point 600 feet north along the canal from Mile Post 36, and a section of the canal in which the exposure shown in the photograph is indicated in the upper bank and in the wash below the canal.

Q. Now, how far down the wash is the lower end of your picture? A. Of this picture?

Q. Yes.

A. This is a scale of ten feet to the inch, so it is approximately 150 feet down to that point there, or 160 feet.

Q. And where is that point in the wash with relation to the point disclosed in Exhibit No. 69?

A. This point here (indicating)?

Q. Yes.

A. Well, this point in the wash and the point shown about the center of 69 are the same.

Q. From your study and measurement, that stratum would run entirely through the canal and then to the east, as shown by the drawing? [246]

A. That would be my judgment. I have indicated, or had it indicated, in this band shown through there as approximately the position it would be in under the bank and come out at the same point and maintain practically an even dip, during that period, as shown in the wash below that point in 75, and also on the hillside in No. 79 and No. 70.

Mr. Lytle: We offer in evidence Exhibit No. 80.

Mr. Veeder: We object to that on the ground

(Testimony of Allen C. Merritt.)

that the witness is not qualified to prepare an exhibit of that character.

The Court: The objection is overruled. The exhibit is admitted.

(The drawing referred to, so offered and received, having previously on pre-trial conference been marked for identification, was thereupon marked received as Plaintiffs' Exhibit 80.)

Q. (By Mr. Lytle): Referring to Exhibit No. 78 and Exhibit No. 75, you testified that in your opinion there was an old stream bed through there?

A. Yes, sir, I believe that there is an old water course there.

Q. What evidence do you find supporting that position?

Mr. Hess: We object to this question, your Honor, as the witness not having shown himself to be qualified, not a qualified geologist. [247]

The Court: Overruled.

A. Calling attention to No. 73, it will be noted right at the point where the rod is being held that that stratum has broken up and discontinued. It will also be noted that there is gravel, coarse gravel, exposed in the disintegrated formation that is falling down over the bank.

Q. What does the gravel formation indicate?

A. It would indicate a water course.

Q. Now, in that connection, and in your study, did you make a drawing to show the approximate

(Testimony of Allen C. Merritt.)

location of that water course in relation to the canal and to this stratum? A. Yes, sir.

Q. I call your attention to Exhibit No. 81, which is the bottom drawing on the board before you, and ask you to state what that is?

A. That is the diagrammatic section parallel to the axis of the canal. The canal is indicated by the blue coloring, and the formation intercepted is indicated by the shading on either side up to approximately the points indicated on the section.

Q. Now, you mentioned the gravel as shown in Exhibit No. 73. Did you find any of that gravel at another point? A. Yes, sir.

Q. I call your attention again to Exhibit No. 68.

A. That is shown exposed in the upper end of the southerly fork of the wash that was caused by the break in the canal. [248]

Q. Now, can you state approximately the difference in elevation of this point in 68 where you found gravel and in 73?

Mr. Veeder: I object, your Honor. There has been nothing to show that he ever took any shots to prove the strike of the dip of this stratum.

Mr. Lytle: He testified, your Honor, that he had taken levels and measurements.

The Court: He testified that he had taken levels all the way through here? A. Yes, sir.

Mr. Veeder: He did not testify that he took levels right at that point.

The Court: All right, go ahead and tell about what you did.

(Testimony of Allen C. Merritt.)

A. These lines are ten feet apart vertically. This point in the forks of the wash is approximately thirty feet below the point the same type of formation is exposed on the left or upper bank of the canal.

The Court: How did you find that out?

A. We took measurements with a level.

Q. (By Mr. Lytle): Now, point on Exhibit No. 80 about where it was you found the gravel in connection with this formation. What is the upper one?

A. This one (indicating)?

Q. That is 80, isn't it? [249]

(The witness here indicated a point on Plaintiffs' Exhibit 80.)

Q. At that point?

A. At that point it indicated the formation that overlies this sandy, porous formation.

Q. And No. 81 was made from measurements and levels which you took on the ground or had taken under your supervision?

A. Yes, sir.

Mr. Lytle: We offer Exhibit No. 81 in evidence.

Mr. Veeder: We object to that on the ground that the witness is not qualified.

The Court: The objection overruled. Exhibit 81 admitted.

(The drawing referred to, so offered and received, having previously on pre-trial conference been marked for identification, was thereupon marked received as Plaintiffs' Exhibit 81.)

(Testimony of Allen C. Merritt.)

Q. (By Mr. Lytle): Now, I call your attention to Exhibit No. 82 and to the more or less rectangular area that is shown on there and ask you to state what that was intended to disclose?

A. That is intended to represent an area that had not produced a satisfactory crop. The ground was what we might call sour. Alkali deposits were exposed on the surface and the ordinary crops were not present. There were some weeds and other vegetation there. [250]

Q. Can you state whether the stratum you have discussed and as showing in Exhibits 73, 76, 74, 71 and 72 are pervious or impervious to water?

A. Well, there is a layer of pervious material and a layer of fairly impervious material, but in describing the impervious material it is subject to saturation by water, clearly shown in No. 71, where the water has risen into the formation since it was turned into the canal. A dark shadow is clearly shown on the bottom of the canal.

Q. I notice in 71 some things there on the bank that look like half-moons. What are those?

A. Well, that is sloughing-off of the bank.

Q. Can you state what occasions that?

A. I would say that the supporting foundation of it was this formation that has been dissolved and sloughed into the canal, as shown in No. 74.

Q. And it shows also in 73? A. Yes, sir.

Q. Now, how deep thick is that stratum that you call impervious but subject to saturation?

A. Oh, two to four feet, possibly. It is very hard

(Testimony of Allen C. Merritt.)

to define the exact thickness of it, but it is generally an irregular stratum along there.

Q. Yes; and where is the pervious material?

A. It seems to lie immediately under it. Right at this point [251] in 73 it is clearly shown, pervious material. Openings in the bank indicate that there may be percolation there.

Q. What would be the effect of water in the canal soaking back into the hillside?

A. Well, in my opinion, it would be to saturate that stratum and follow it on a slope towards the valley.

Q. Would it have any tendency to reservoir back in there? A. Oh, yes.

Q. When you were there on the 7th or 8th day of March, 1948, did you see any evidences of water along the canal bank? A. Yes, there is a——

Q. Where?

A. In this draw indicated in No. 70 there is running water.

Q. Was that live water?

A. Well, it was running water.

Q. Well, it was moving? A. Yes, sir.

Q. And where did it first appear?

A. Immediately below the canal.

Q. From your examination of the canal at that time did it present any evidence of having water flowing in it within recent months?

A. No; the canal was very dry.

Q. Did you see any other points along there where there was live or moving water? [252]

(Testimony of Allen C. Merritt.)

A. Well, in the draw shown in this picture here——

Q. In No. 78?

A. In No. 78—This picture here was taken from a point near the center of it, so we walked down in the bottom of that, and the ground was soft and moist in the bottom of that draw.

Q. Would you say that moisture came from falling rain or melting snow?

A. No, I couldn't say.

Q. What was the condition of the area around it and on the mountain side of the bank? Was that ground wet and moist at that time?

A. Very dry.

Q. Did you observe the area below the bank south of there on what has in this case been described as the Hust place? A. Yes, sir.

Q. Did you observe any water in that area?

A. I presume you have reference to this area in this point here to the south of it, you say? To the south of the break?

Q. Yes.

A. No, sir, I did not make any observations there at all.

Q. Is there some type of a structure in the right foreground of Exhibit No. 70?

A. Well, I didn't observe it. I believe there was something in there. I didn't notice what it was. There seems to be [253] quite a pit in there.

Q. You didn't check on it to notice what it was?

A. No, sir. I noticed it was a little moist down

(Testimony of Allen C. Merritt.)

in there. I walked around the edge of it and down into this field, but I didn't notice it particularly in that regard.

Q. Now, what did the fact, in March of the year, with the canal dry, that there was live or running water below the canal suggest to you or cause you to believe?

Mr. Hess: Object to that as calling for a conclusion of the witness and the witness not shown himself to be qualified.

The Court: Overruled.

A. The terrain above the canal is essentially a desert terrain; there is no moisture present. There is no moisture indicated in any of the draws above the canal along the section that I examined, but in the draw or canyon indicated in No. 70 there was running water, there was considerable vegetation and some trees and willows along the foot of the bank, occasioned, undoubtedly, by the seepage from the canal. That is natural. From such type of construction, it is bound to come. The upper or hillside bank of the canal exposing the soft rock stratum and sand composition of the material naturally will absorb a considerable amount of moisture. Over a period of several months of saturation from the canal it would entrain a considerable amount of water, forming a considerable amount of reservoir. My conclusion would be that that would be the [254] source of water running down those draws.

Q. And through what stratum would that water be moving or percolating?

(Testimony of Allen C. Merritt.)

A. Well, there is only one stratum exposed to the flow of water in the canal. It would have to be that stratum.

Q. All right, what stratum was it, then?

A. This stratum here shown in the canal, the bank of the canal.

Q. Would that be the stratum as shown in the drawing Exhibit No. 80?

A. That would be my idea of presenting it, yes, that drawing.

Q. What would be the effect of water continuously flowing through that stratum in the canal and escaping below?

A. Well, where there's strata that will absorb water, percolation will continue for a long period, like a sponge will absorb water and evaporate it, drain out in time.

Q. The water flowing and percolating through that stratum, would it or would it not have a tendency to form into channels? A. Certainly.

Q. Over a period of years would those channels become smaller or enlarged?

A. I would say that they would become enlarged.

Q. And as they did what effect would that have upon the quantity of flow?

A. The flow would naturally increase over a period of time. [255]

Q. Predicated upon your testimony, what effect would that have upon a ditch bank under which that entrained stratum would lie?

(Testimony of Allen C. Merritt.)

Mr. Hess: Object to that as incompetent, irrelevant and immaterial and calling for——

The Court: Overruled. It is opinion evidence.

A. If that continued any length of time it would establish channels of percolation and probably a considerable flow would develop; just a natural phenomenon, nothing extraordinary about it.

Mr. P. J. Gallagher: Would you read his answer, Mr. Rauch? I didn't get it.

The Court: Read it.

(Last answer read.)

Q. (By Mr. Lytle): What effect would that have upon a canal bank which is overladen?

Mr. Hess: We object to that as the witness not having shown himself to be qualified.

The Court: Objection overruled.

A. I would say that it would weaken it ultimately and possibly destroy it.

Q. (By Mr. Lytle): In the construction of a canal over such a stratum with the incline and dip you have indicated, what should be done to guard against the condition you have pictured here? [256]

Mr. Veeder: I object, your Honor. The witness has not been qualified as an engineer, not qualified as a man trained in the construction of canals—no evidence whatever on it.

The Court: Oh, I think perhaps that objection is well founded.

Mr. Lytle: Yes, your Honor, I will withdraw that question. We can approach that with another witness.

(Testimony of Allen C. Merritt.)

Q. Did you make any investigation to determine at that point where this stratum is exposed in the mountainside bank of the canal the lineal distance along the canal in which it is exposed?

A. Yes.

Q. And what was the lineal distance in the canal?

A. I would say at least 250 feet and perhaps 300 feet.

Mr. Lytle: May I inquire, your Honor, did we introduce No. 81?

The Court: Yes.

The Clerk: It has been received.

Q. (By Mr. Lytle): As the result of the study which you made personally and on the ground in connection with your associates, under the conditions which you found on the ground, do you have an opinion as to what caused the break in question?

Mr. Hess: Object to that as incompetent, irrelevant and immaterial, the witness not showing himself to be qualified.

The Court: Well, I am inclined to think that that objection [257] probably raises the point that he was not on the ground at the time the break was made, and under those circumstances, unless you give him some data upon which he may visualize the break, the objection is well founded and is sustained.

Q. (By Mr. Lytle): Have you been in attendance in the courtroom during the entire period of this taking of testimony? A. Yes, sir.

(Testimony of Allen C. Merritt.)

Q. Have you listened to the testimony of the witnesses who have preceded you?

A. Yes, sir.

Q. Did you note and observe throughout their testimony the physical conditions which existed at the time of this break in July of 1946?

A. Yes, sir.

Q. Taking into consideration those matters, together with your study made on the ground between yourself and your associates, your examination, have you an opinion as to the cause of this break?

Mr. Hess: Now, we object to that as incompetent, irrelevant and immaterial. The witness has not shown himself to be qualified and not present at the time of the break, and not a proper hypothetical question. A hypothetical question should cover each of the details and show the details as existed at the time, and this, as I say, is a pot-shot question. Whether he heard of or did not hear of is a negative pregnant, and we [258] object to that kind of hypothetical question.

The Court: Wigmore states the rule that a hypothetical question can be based upon the testimony of a particular witness or series of witnesses, so long as the field is limited so that the trier of the facts can determine upon what basis the answer to the hypothesis rests. However, in this instance, exercising my discretion, I rule that a question should be asked in the strict form, in order that I should find what elements counsel has taken into consideration in determining the witness' opinion.

(Testimony of Allen C. Merritt.)

Mr. Lytle: Well, your Honor, with that question we would conclude the examination of this witness. I am wondering if we might not prepare our hypothetical question and place it before the witness the first thing in the morning.

The Court: Yes, you may prepare it, prepare it in writing, and submit a copy to counsel.

Mr. Lytle: Yes, sir.

The Court: Court will be in adjournment until tomorrow morning at ten o'clock.

(Whereupon, at the hour of 5:00 o'clock p.m., Thursday, June 10, 1948, the trial of the above-entitled cause was suspended, the Court taking an adjournment until 10:00 o'clock a.m., Friday, June 11, 1948.) [259]

Friday, June 11, 1948, 10:00 A.M.

ALLEN C. MERRITT

thereupon resumed the witness stand as a witness in behalf of the plaintiffs herein and was examined and testified further as follows:

Direct Examination

(Resumed)

By Mr. Lytle:

Q. Since your examination yesterday, Mr. Merritt, I have been checking your testimony with respect to general qualifications. Have you had any experience in hydraulic engineering other than the period of your general statement yesterday?

(Testimony of Allen C. Merritt.)

A. Yes, sir.

Q. State that experience.

A. I have constructed a number of canals and ditches.

Q. Any canals or ditches comparable to the canal under consideration?

A. I never have supervised the construction of anything as large or long. Cross-sections comparable have been constructed, but not such length.

Q. Yes. Well, the area of the canal under consideration is short, the cross-section.

A. Very closely, yes, sir. In fact, several short canals of that capacity. [260]

Q. Are you acquainted with Mr. Spofford?

A. Yes, sir.

Q. The present Superintendent and engineer in charge of this project?

A. Yes, sir.

Q. When did you know him? When did you first know him?

A. Possibly about 1933.

Q. To your knowledge, did he ever occupy any official position in the State of Idaho?

A. Yes, sir.

Q. What was that position?

A. Commissioner of Reclamation.

Q. Did you ever perform any hydraulic engineering under him while he was in that office?

A. I believe I made some investigations and reports to his department. I can't recall just exactly the dates or what they were.

Q. Yes.

(Testimony of Allen C. Merritt.)

A. I am satisfied I was doing some of that nature of work and had some contact with his office.

Q. In the course of your work in hydraulic engineering, how many miles of canals of different sizes, length and cross-sections have you supervised?

A. That would be very hard for me to say, but of fairly large canals perhaps forty or fifty miles altogether, of fair-sized [261] canals; and of ditches, probably many irrigation ditches, farm ditches and other small ditches, that may run into maybe 1500 miles or more.

Q. And in the course of that work have you constructed ditches and canals along the side or break of the hill on terrain similar to the one under discussion here? A. Yes, sir.

Q. And in that work was it constantly necessary for you to guard against leakage and seepage?

A. Oh, yes, every precaution to loss of water.

Q. Yes. In that work have you contacted the impervious and insoluble strata and the pervious strata you have testified regarding here?

A. Yes, I have had quite a little experience in that kind of conditions.

Q. Is this type of stratum that you have found in your investigation in this canal unique?

A. Oh, I think it is very common that most of the reclamation projects that have been constructed where the canals are diverted from the streams and carried along the sides of the valley encounter comparable formations, soft surface formations.

(Testimony of Allen C. Merritt.)

The Court: It would be helpful to me if I knew where he has done all this work.

Mr. Lytle: Very well, your Honor.

The Court: Because it makes considerable difference [262] whether it is in an area comparable to this or not.

Q. (By Mr. Lytle): Now, where has this work in the hydraulic engineering been performed?

A. In Beaverhead County, Montana, on the Blacktail Deer Creek drainage, I designed and supervised the construction of a canal for the Poin-dexter-Orr Livestock Company that was in a very similar formation to this.

Q. Was that in an area comparable to this from the standpoint of general climatic conditions?

A. I think it was a little colder climate, at a considerably higher elevation; about 5,000—5,600 feet, I believe.

Q. Do I understand you to say that the formations were quite similar to the formations here?

A. Yes, sir.

Q. And where else have you——

A. In the Lemhi Valley, small canal with a carrying capacity of about 200 second-feet, 100 to 200 second-feet, along a similar formation, very similar to this.

Q. Where is the Lemhi?

A. It is in Lemhi County, in Idaho, in the Eastern part of the state.

Q. Was that an area of similar character to the area in which you made this investigation?

(Testimony of Allen C. Merritt.)

A. Quite similar. The country has a greater slope, but the bedding of the formation is very similar. [263]

Q. And is that also in the desert-type country?

A. How is that?

Q. Is that also in the desert-type country?

A. Oh, yes, the canal is for irrigation of desert lands.

Q. I believe that you did not give us the capacity of the canal you constructed in Montana.

A. It was around 100 second-feet average; at the head somewhat more, perhaps 150 feet; carried 100 second-feet a considerable length, perhaps sixteen miles.

Q. Now, have you since that time been in general construction, supervising hydraulic engineering, in Western and Southern Idaho?

A. Yes, sir.

Q. How many years general practice there?

A. Well, I can't recall when I first begun doing any work—I did some work on the Owsley Project—Mud Lake Project it is commonly known—in Eastern Idaho. I believe in about 1908 I was in there first, and again in 1912, and I made some later investigations. I can't recall the exact time without looking up my records, but it is somewhere in there.

Q. Yes. In your work around Boise and in Western Idaho do you find the conditions of climate and soil and strata generally the same as you have found in the area under study?

(Testimony of Allen C. Merritt.)

A. There are certain slight variations between localities and throughout the route of the canal, normally they will vary, [264] but the conditions were fairly similar in this type of work.

Mr. Lytle: We are now ready, your Honor, to propound a hypothetical question to this witness. A copy has been supplied to counsel for the Government.

The Court: Have you read this question?

Mr. Hess: Well, if your Honor please, I think it should be submitted, handed to the party himself, in the record.

The Court: Well, that is true, but if you see any objections you might as well tell me.

Mr. Hess: Yes, I have objections.

The Court: All right, what do you object to?

Mr. Hess: We object to this hypothetical question for the reason that the witness has not shown himself to be qualified. We object to it on the ground that it is not a proper hypothetical question. It does not cover the evidence as in the record, shown in the record. In particular, it overlooks entirely the consideration of the lateral ditch described in this situation completely or practically surrounding the wet area below the break of the canal. It assumes a state of facts that are not in the evidence, wherein it states, in particular, that where the break occurred there was no core wall constructed in the lower bank of the canal. There is no evidence here as to the manner of construction of the wall, whether it was a cut completely which covered not only the

(Testimony of Allen C. Merritt.)

upper but the lower bank of the canal, which is merely speculation and guesswork [265] on the part of the evidence that has so far been introduced here in this case. There is no evidence of how the wall of the canal was constructed. And the hypothetical question does not include at all or mention in any degree the evidence that was put in here about the silting of the bottom of the canal or the depth of it prior to the time of the break, or of the wall of the canal that went out, and there is no evidence of any relationship, as shown in the evidence, whatsoever between this seepage area that is described in this hypothetical question of 200 or 250 yards south and east of the spot described later as the break in the canal. As to the break that actually happened in the canal, there is no casual connection shown whatsoever of it, and it does not include the evidence as to the condition of the subsoil or other strata underneath the floor of the canal. And, generally, the question does not cover the evidence that is introduced, as, under the evidence introduced, the evidence so many times has shown that there was no knowledge of what had happened when the canal was constructed here. We think that this whole question would be the merest and wildest guess and speculation as to what caused this, by virtue of the evidence that has already been introduced.

The Court: Go ahead and read the question.

Q. (By Mr. Lytle): Mr. Merritt, assuming that the North Canal of the Owyhee Project was built in 1934 in the manner and [266] through the types of

(Testimony of Allen C. Merritt.)

soil that you have observed and found on your examination of that canal in 1948, and regarding which you have testified in this hearing; and assuming that in the year 1945 wet spots developed in the soil in the area immediately adjacent to the lower bank of the said canal to such an extent that it was difficult to cultivate and plow such spots because of the water in the soil, and that when the crops on said area were cut the water would rise in the mower and horse tracks, and that tractors could not be used in said harvesting operation because of the wet condition of the soil; and assuming that this condition existed over an area of approximately one and one-half acres in different spots adjacent to said canal; and assuming that a water seepage developed in an area of some 200 to 250 yards south and east of the spot later to be described as a break in the canal and that such seep has increased materially to a point where it now runs in a perceptible stream or flow; and assuming that on July 14, 1946, the North Canal was carrying approximately 450 second-feet of water, and that on that date a large segment of the lower bank of said canal broke away and was washed away below the normal bottom of said canal; and further assuming that in the construction of that part of the canal where the break occurred no core wall was constructed in the lower bank of that canal; assuming all the matter suggested to you in this question, and taking into consideration the type of soil you found in the [267] sides and bottom of the canal upon your examination in 1948

(Testimony of Allen C. Merritt.)

and regarding which you have testified, have you formed an opinion as to what caused the ditch to break in July of 1946? A. Yes, sir.

Mr. Hess: If your Honor please, there are two additional objections I would like to add to what I have just stated. I further make the objection that it does not include the evidence that has been introduced in the case to the effect that there were two breaks in the canal, one on July 14th and one on July 19th, in 1946, no mention being made of the time of the breaks in this canal; and further to the effect that this canal had carried water since its construction for some eleven years and had no breaks in the vicinity of where this break occurred, or in that vicinity.

The Court: I shall rule on the objection as a whole as if it were made after the asking of the question, and this ruling will control, and you may have an exception to the whole field in this regard. It is not a proper objection to the hypothetical question that it does not cover the whole field of the evidence. The propounder of the question may choose what phases of the evidence he thinks are of value for his theory or purpose. The trier of the facts must take into consideration the elements of fact which are asked about by the propounder in making up his mind as to what weight is given to the question. It is not a proper objection to a [268] hypothetical question that it assumes facts not in evidence. I think that there is no valid objection here as to the substantive facts not in evidence. The

(Testimony of Allen C. Merritt.)

question here does, it is true, leave out certain phases of the evidence which counsel for the defense apparently thinks are important, but the method of procuring that is to ask hypothetical questions based upon that assumption by the defense. On the whole, this question now fairly delineates the evidence which the Court will have in mind in construing the question and the answer and, therefore, the Court thinks it is proper and may be answered.

Q. (By Mr. Lytle): What, in your opinion, was the cause of the break in this canal on the 14th day of July, 1946, being the first break?

A. May I extend the——

The Court: No, just tell what you think was the cause of the break, if you have an opinion.

A. My opinion was formed, after investigating the conditions, that the canal was dug through a pervious stratum and that stratum continued to absorb water over a period of years until it became saturated and somewhat in a liquid state and in that condition would not support the bank that was built on the slope of the hillside where the canal cut through.

Mr. Hess: I wonder if the Reporter could read that answer?

The Court: Yes. [269]

Mr. Hess: So we could get it down.

The Court: All right.

(Last answer read.)

Q. (By Mr. Lytle): Predicated on the same elements contained in my hypothetical question to

(Testimony of Allen C. Merritt.)

you, have you an opinion as to what caused the second break of the canal?

Mr. Hess: If your Honor please, may I renew my objections to this, the same as to the previous hypothetical question?

The Court: The ruling is the same.

A. My opinion would be the same.

Q. (By Mr. Lytle): Having expressed your opinion on the cause of the two breaks in the canal, and taking into consideration all the factual situation contained in the hypothetical question propounded to you, and also taking into consideration the conditions you found in your examination of March 7th or 8th, April 1st, the latter part of March, and again in May, of 1948, and relating to which you have heretofore testified, have you formed an opinion as to how the break which occurred in July of 1946 could have been avoided at the time of the original construction or later?

Mr. Hess: May we renew our objection as given to the original hypothetical question and include our reasons for this?

The Court: The objection as renewed and restated is overruled. [270]

A. In my experience, in the construction of a canal of that magnitude the cross-section at a point where there's questionable foundations, the section should be made considerably larger and lined with an impervious lining. Concrete sometimes is used. It is very expensive. Earth of proper character, of sufficient thickness and stabilized with enough gravel

(Testimony of Allen C. Merritt.)

to prevent its flowing, makes a very satisfactory lining and has been used by me in a great many cases where similar conditions existed with success.

Q. (By Mr. Lytle): And, in your opinion, would that type of lining have avoided the seepage and leakage found in this section?

A. That would be the purpose of it, but careful examination of the portion of the canal would indicate if further measures were necessary to prevent seepage.

Q. Did you examine the lining of the canal after the repair, and on the lower side of the canal?

A. Yes, sir.

Q. Had the entire canal been lined with material of that character over the section involved, would it, in your opinion, have been effective in preventing leakage and seepage?

Mr. Hess: We renew our same objection, your Honor, that the witness is not qualified, and the other elements as set forth in our objection to the first hypothetical question.

The Court: The objection as renewed is overruled. [271]

A. May I make reference to the photographs, please? In Exhibit No. 74 there is a very splendid job of lining on the lower bank. It shows very clearly——

Q. (By Mr. Lytle): Will you stand back to the wall a little closer, so the Court may see.

A. The object of this photograph was to show that lining. It has been very well constructed and

(Testimony of Allen C. Merritt.)

has no apparent sign of any weakness. There is no lining on the opposite side of the canal where the stratum is exposed. I believe that both sides of the canal should have been lined and that the nature of the lining material should have been determined before it was placed in the canal, tested and determined as to its efficacy.

Q. I don't know as my question is specifically answered now. If the entire canal had been lined as the outer or the valley bank of the canal is now lined, would that have been effective in preventing excessive seepage or leakage?

Mr. Hess: We object to that. We renew our objection as in the first hypothetical question; further, that it is incompetent, irrelevant and immaterial.

The Court: The objection is overruled.

A. That would be my opinion, yes, sir.

Q. (By Mr. Lytle): You mentioned that in a section such as this under consideration it should have been widened. Just what do you mean by that? [272]

A. To provide for lining and maintaining a uniform cross-section so that the velocity of the water in the canal would remain constant.

Q. Would a lining on the slope which you found on the hillside bank of the canal be effective—that type of lining?

A. It certainly would, if it is effective on the lower side where it is exposed entirely to the water.

Q. I think you overlooked one aspect of my question. Is the bank of the hillside side of the

(Testimony of Allen C. Merritt.)

canal in the same slope as the bank on the valley side?

A. No, it is not. The photographs will indicate that.

Q. Yes. Now, what is the difference? Just state it in plain words.

A. Well, they are nearly vertical, the slopes on the hillside.

Q. Then, as I understand you, for the type of lining used on the valley side of the canal it would have been necessary to give the mountain side of the canal a greater slope? A. Yes, sir.

Q. Now, that almost perpendicular wall on the mountain side of the canal, what effect does that have so far as sloughing of the mountain side into the canal? A. It becomes wet——

Mr. Hess: We renew our objection, your Honor, the same as to the first hypothetical question asked.

The Court: The objection is overruled. [273]

A. It becomes saturated with water and slides down into the canal.

Mr. Lytle: That concludes our direct examination, your Honor.

The Court: I expect to conclude this session at about twenty minutes to twelve, so that might give you some idea how you want to start your cross-examination.

Mr. Hess: Do I understand of the Court that if we did not start cross-examining the witness now—As I understand, they are not completed with their evidence—that the Court would permit us to cross-

(Testimony of Allen C. Merritt.)

examine at the next adjournment of the Court, or should we wait——

The Court: I think he has covered a lot of testimony. If you do not want to take up the hypothetical phases, I will postpone those until the end of the cross-examination—That would be next Monday—but I think he has covered enough ground that you can cross-examine now until adjournment.

Mr. Hess: I see. Go ahead.

Cross-Examination

By Mr. Veeder:

Q. Mr. Merritt, you did not state what was the general descriptive name of this area.

A. What——

Q. What is the geological reference to this area to which you have been testifying? [274]

A. It is generally recognized as a lakebed formation.

Q. What is the name of that?

A. Oh, I wouldn't place any particular name on it. It has no bearing on the——

Q. Isn't there a common reference to this area?

A. Oh, yes, there is the Miocene lakebeds, or late Tertiary formations it is generally called.

Q. Isn't there a general reference to it as the Idaho formation? A. Oh, yes.

Q. Well, will you state what the Idaho formation is?

A. Oh, I will merely state that what we see here is a part of it.

(Testimony of Allen C. Merritt.)

Q. In other words, this is part of an old lake-bed, is that correct? A. I would say so.

Q. Would you state how deep it is through this area? A. Oh, I wouldn't be able to say.

Q. In your testimony yesterday you stated that this was the bed of an old stream, as I understood.

A. I believe you misunderstood my——

Q. Well, didn't you state that the way the gravel got in there was by reason of the fact that it was a stream?

A. Oh, I mentioned a small area in the bottom of the canal indicated a water course. [275]

Q. Well, isn't that a stream?

A. Not unless there is water running in it, I wouldn't call it a stream.

Q. Well, you stated that it was an old water course that deposited gravel in the stratum concerning which you testified. A. Yes.

Q. Now, would you state how that could be a stream and at the same time the bed of an old lake?

A. Just through a gully washed in that bed.

Q. Well, at what time?

A. Well, I wasn't there. I couldn't testify as to that.

Q. Well, I think the record is extremely confusing when you say the deposit is there by reason of a stream and at the same time you say that it was an old lakebed.

A. In any formation of this type there has been erosion taking place over a long period of years.

Q. Well, did the—Excuse me; go ahead.

(Testimony of Allen C. Merritt.)

A. As the erosion takes place lateral channels are washed toward it due to the storms, surface water falling, it would cause the deposition of gravel where there has been considerable flow.

Q. Well, if there was considerable flow over this so-called porous area, wouldn't that have washed out the porous area?

A. Oh, not necessarily. [276]

Q. Well, now, you stated earlier that water from the canal, if permitted to seep in there, would wash it out?

A. That is right.

Q. Then why wasn't it washed out by this stream?

A. Well, the stream dried up.

Q. Well, if it was depositing gravel into that substratum there it would seem to me that it would certainly have the effect of washing away the porous area, would it not?

A. Well, it has to a certain extent, yes.

Q. Well, I still think that you have not clarified in any way the reference to a stream and the ancient bed of the lake. If you would step up there and show us how that can be, that a stream deposited that and at the same time the lakebed deposited.

A. I think it is very clear that there is gravel in the bank at that point.

Q. Now, is that beneath the stratum of porous?

A. To a certain extent, it can be seen that the stratum is broken up in that area.

Q. Is it not all the way through the stratum?

A. Well, I haven't been able to tell you. I didn't examine it——

(Testimony of Allen C. Merritt.)

Q. You didn't examine it?

A. I examined it in this point and in this point below.

Mr. Lytle: Referring to Exhibit No. 68. [277]

Q. (By Mr. Veeder): Now, was that stratum deposited there by a stream or by a lake?

A. I would say it was a fault that took place as the surface of the lake receded.

Q. Then it was not the stream?

A. Well, I believe water flowed in the channel, if that is what you mean.

Q. I didn't hear.

A. I believe some water must have flowed down that channel laterally to the valley.

Q. Well, if there was a stream flowing through there would it not wash away the porous area?

A. Why, it did to a certain extent. That is very evident.

Q. Now, in general, throughout this area, are there not other strata of the same character?

A. Why, undoubtedly they occur——

Q. In this same area it is not possible that there was another stratum of porous beneath this stratum to which you refer?

A. I have no doubt that there would be.

Q. Isn't it true that the width of this stratum varies as it progresses through the earth?

A. Oh, certainly.

Q. Then can you say with a certainty that there is an unbroken line of porous material between the wash and the bottom of the canal? [278]

(Testimony of Allen C. Merritt.)

A. Only by the exposures.

Q. Did you make any drillings to ascertain that fact?

A. Between these two points where it is exposed, you mean?

Q. Between the wash and the upper bank of the canal?

A. No, sir.

Q. You made no drillings at all?

A. No, sir.

Q. Now, you made a statement earlier that the stratum might break and there might be intervening portions of different material, isn't that correct?

A. Oh, yes, that would occur in any stratum.

Q. In other words, there is no assurance that the porous stratum proceeds from the wash to the upper bank of the canal?

A. Only from the indications in the vicinity.

Q. Now, would you tell us how you arrived at the conclusion that that stratum proceeds up through that area?

A. I refer again to Exhibits 79 and 70, where the dip of the stratum is indicated on the mountain side.

Q. Now, what is the degree of inclination of that dip?

A. We measured it in several places and it averaged about nine degrees.

Q. It averaged about nine degrees?

A. Yes, sir.

Q. What were the extremes in reaching that average?

(Testimony of Allen C. Merritt.)

A. Well, there was very little variation. When we measured [279] the level between this point on Exhibit 80 where it was exposed and where it was exposed again in the wash below, our measurements indicated we were only 42 minutes off of the angle determined at these other points.

Q. And on this Exhibit 81,—Now, that is the lower one there—what does that disclose? Does that disclose the continuity of the dip there, is that right?

A. This section is parallel to the axis of the canal. It is diagrammatic, with the exception of the elevation of the bed that we are discussing. It shows that at two points, in Exhibit 74, between the two points indicated on the bank opposite where the break occurred.

Q. In other words, that demonstrates the continuity of the porous area, is that correct?

A. Yes, sir. It also indicates that there is a slight variation between the elevation at that point and at that point (indicating).

Q. Well, what is the extent of that variation? If those lines were to be continued on this bank here, would you show the degree of that?

A. On this bank (indicating)?

Q. Yes.

A. It will come in above this slightly (indicating).

Q. That is true, then, the fault of the porous area on your diagram, is that correct? [280]

(Testimony of Allen C. Merritt.)

A. It indicates that there has been a movement at that point.

Q. In other words, there has been a separation?

A. A slight separation, yes, sir.

Q. And that has continued throughout the whole area?

A. I don't understand that exactly.

Q. The movement was a general movement, if I understand your statement?

A. Oh, no, not necessarily. It may be likely. That point there indicates a movement, which is indicated also in Exhibit 68, which bears the same angle of slope directly opposite where it is exposed or below where it is exposed in the canal.

Q. But you did state that there was a showing of subterranean movement, isn't that correct?

A. Yes, sir, that shows in Exhibit 68 very clearly.

Q. In other words, it is not possible to assert that there was a continuous porous area as disclosed on your Exhibit 70 and on your Exhibit 73? That there is a very apparent departure from a continuous dip?

A. Do I understand you to refer to the dip indicated here (indicating)?

Q. Yes.

A. And indicated here (indicating)?

Q. Yes.

A. Well, they are fairly continuous, yes, sir.

Q. But they are broken? [281]

A. Slightly, yes. In most geological conditions you will find that.

(Testimony of Allen C. Merritt.)

Q. Would you take this ruler and continue that on right there in the part of the canal and just show the amount of departure there. Now, in a very short area isn't there a departure just about an inch on that exhibit?

A. About a half-inch, yes, sir.

Q. Well, now, for such a small area isn't it true that for the great number of feet this must continue to have a continuous porous area? Isn't it true that you cannot say with any certainty at all that that porous area which you show there on your 81 is continuous? Doesn't this lateral just prove that your picture is not demonstrative of what actually exists?

A. I think you misunderstood me. It is indicated in Exhibit 68 that there is displacement there, slight displacement, along that plane.

Q. The point that I am making is that you have submitted that Exhibit 81 to the Court as part of the record as disclosing a continuous porous area, but your Exhibit 81 shows that it is not a continuous area and that in the very short area that you have there there is a variation of a half-inch?

A. That is right, in that distance, yes, sir.

Q. Now, would you state whether your investigation discloses that the porous area enters the bottom of the canal? [282]

A. I would think so, yes, sir.

Q. It does now? A. I am sure it does.

Q. But at the same time you have demonstrated a lining on 74, isn't that correct?

(Testimony of Allen C. Merritt.)

A. This here (indicating)?

Q. Yes. A. Yes, sir.

Q. And isn't that between the water and the porous area?

A. The porous area is below the bottom of the canal.

Q. That is correct? A. Yes, sir.

Mr. Veeder: I submit, your Honor, that these Exhibits 80 and 81 should be stricken from the record because they do not disclose, by the witness' own testimony, the true picture of this porous area upon which they rely as the basis for the break in the canal.

The Court: That is an argument. Motion denied.

Q. (By Mr. Veeder): In your testimony concerning construction, would you state the factors which you take into consideration in determining the course and location of a canal?

A. In the first place, the object is to conduct water from one point to another.

Q. I think that is obvious.

The Court: The remark of counsel is stricken. You asked [283] him a question and he made an answer which is very proper. Go ahead.

Q. (By Mr. Veeder): How many acres of land are there in the area served by the North Canal?

Mr. Lytle: We object to that as being improper cross-examination.

A. I have no knowledge of the area.

Mr. Lytle: Just a moment.

The Court: He says he has no knowledge.

(Testimony of Allen C. Merritt.)

Mr. Veeder: He has no knowledge. Well, where would you have located the canal other than its present situs?

A. I don't believe that there is any choice in the location of the canal.

Q. Well, you objected to the area over which this canal was constructed.

Mr. Lytle: I object to that question on the ground that it is contrary to the statement of the witness.

Mr. Veeder: He said the foundation of the canal—Excuse me.

The Court: Just a moment. The objection is sustained.

Q. (By Mr. Veeder): Would you state whether this condition which prevailed here, this porous condition, is general throughout the whole area?

Mr. Lytle: We object to that as not being proper cross-examination. The testimony of this witness as to the porosity [284] of the stratum was confined solely to the area under investigation.

The Court: Overruled. Proper cross-examination.

A. I did not examine much of the area, outside of the general appearance of it. I would say that it was in an area that was subject to considerable seepage and that the condition was somewhat general along the route of the canal.

Q. (By Mr. Veeder): Are you acquainted with other canals in the area? A. Oh, just generally.

(Testimony of Allen C. Merritt.)

Q. What is the general practice concerning their construction?

A. I think it follows the general practice on this canal.

Q. In other words, this is the general practice of constructing canals in the area?

A. Yes, sir, I think so.

Q. You think it is reasonable, under the circumstances, to get water to the land in the way that this canal is constructed? A. I would say so.

Q. You made no borings whatever in the canal bank to ascertain the continuity of the porous stratum?

A. No, sir. The stratum is exposed there and openings are plainly visible. You can reach your arm in there two or three feet in those places.

Q. Did you check to see if there were any other stratum of porous area which might have proceeded beneath the canal? [285]

A. Well, there was none exposed where I examined it.

Q. There were none exposed?

A. I didn't see any.

Q. Well, could the degree of variation of the porous area have been such as to run the porous area, project the porous area, beneath the canal? Suppose there was a variance of two or three degrees there?

A. I don't quite get the question. Do you have reference to this Exhibit 80?

(Testimony of Allen C. Merritt.)

Q. Yes, that is correct. What would the variance of two degrees do to the strike or the dip of that porous area?

A. Well, if it was flatter it would bring it out higher up on the hillside.

Q. That is correct; and if it were——

A. If it were steeper it would bring it out lower down.

Q. And it might pass entirely beneath the bottom of the canal without entering it?

A. If there were such a condition. I did not observe anything of that kind.

Q. In other words, a couple of degrees would have done that?

A. Why, yes, a change in the angle would have done that, certainly.

Q. That is correct. You stated that the upper bank of the canal was in effect a reservoir. Would you explain that?

A. I don't recall having made just exactly that statement. [286]

Q. That specific statement is in the record.

The Court: Now, just a moment. Don't argue with the witness.

Mr. Veeder: I am sorry, your Honor. I am sorry.

The Court: Ask him questions, that is all. He says he doesn't remember it, and that is a ground for argument afterwards if you find such a statement in the record.

(Testimony of Allen C. Merritt.)

Q. (By Mr. Veeder): Well, did you or did you not say that the upper bank of the canal was in effect a reservoir?

A. If I said so I certainly did not intend to make the statement just exactly that way.

Q. Well, what did you intend to say?

A. My intention was to indicate that the material was porous and would absorb a certain percentage of moisture which would remain, perhaps, over a period of time and gradually drain out.

Q. Would you explain on your diagram 80 how that would occur?

A. The water line is above this porous stratum.

Q. Yes.

A. The indications after the water was turned into the canal are that by capillary attraction, indicated in Exhibit 71, the moisture was creeping up in the formation. It shows a darkening line on there very distinctly, but——

Q. But does it enter the porous area and proceed upward? Is that what you say? [287]

A. I would say so, yes, sir, that would happen.

Q. It runs uphill, in effect?

A. No, sir; it is capillary attraction.

Q. But it does proceed against the grade?

A. Yes, sir.

Q. About how far would you say it would go?

A. I wouldn't tell without examination. It would take time, and the saturated formation——

Q. Have you any idea how much water would be accumulated in there?

(Testimony of Allen C. Merritt.)

A. Oh, I wouldn't be able without making careful tests of the amount possible in the formation.

Q. Well, what is the purpose of the statement that, as I understood it, water would be accumulated in that area?

Mr. Lytle: We object to the form of the question.

The Court: Overruled.

A. The presence of water in the gulch somewhat to the north, shown in this picture here and in this picture, Number 79 and Number 70, would have to be determined, as there was no water above the canal at any point, but there was water running down there, and was at the time I went to the location.

Q. At what time?

A. Oh, in March, and again in the first of April. There was no water in the canal at that time and still there was water running down that canyon and other evidences of moisture. [288]

Q. There was no water in the canal at all?

A. No, sir. Here is the canal on that date.

Q. There was in March, was there not?

A. That was the first of April when I took the pictures.

Q. Well, in the spring of the year isn't it pretty general that there is snow and water and rain?

Mr. P. J. Gallagher: Not in this country, Brother.

Mr. Veeder: Well, Mr. Gallagher,——

(Testimony of Allen C. Merritt.)

The Court: Counsel, we will get along without you testifying.

A. Certainly it rains in the spring, yes, sir.

Q. (By Mr. Veeder): It could come from those sources; is that not possible?

A. Well, there wasn't any indication that there was any water above the canal at all.

Q. Did you go back in the foothills?

A. Oh, yes; yes, sir.

Q. How far did you go?

A. Oh, seven or eight hundred feet, perhaps an eighth of a mile.

Q. Isn't it entirely possible that, due to the slant or inclination of the land toward the river, water from other sources to which you refer should be on the surface of the land down in the field?

A. Oh, yes, it is possible. [289]

Q. In other words, isn't it wholly possible that the rain and the snow and the natural percolation of the water in the land would flow toward the river; is that not correct? A. Certainly.

Q. Then you have no certainty that the canal was the source of the water?

A. I reason it this way, that the vegetation shown and the growth shown in that gully there is very young, it hasn't been there but a very few years.

Q. What is the type of vegetation?

A. Oh, it is small willows and small cottonwood trees.

(Testimony of Allen C. Merritt.)

Q. What is the type of vegetation further down towards the river?

A. Down here (indicating)?

Q. Yes.

A. Oh, wherever there is water there is vegetation.

Q. It could be, in other words, that water from any source would do that?

A. Oh, yes, sir.

Q. Then there is no assurance that it is from the canal?

A. I would say that that is possible.

Q. If this water was absorbed into the upper bank it would be necessary for it, on the basis of this diagram of yours,—Wouldn't it be necessary that it proceed back through the canal? [290]

A. In what manner do you refer? I don't get your question.

Q. Well, you have indicated absorption on the upper bank, isn't that correct?

A. Yes, sir.

Q. And you have indicated with that water which is absorbed even along in March and April, even though the canal was shut off in October, the water arises down in the field some several hundred feet down the hillside, isn't that correct?

A. Yes, sir.

Q. Now, if the water proceeds down—and you have testified that the water proceeds down that porous area, isn't that correct?

A. Yes, I would think so, yes, sir.

(Testimony of Allen C. Merritt.)

Q. Then if that water were to proceed down along the dip which you have of that porous area it would necessarily pass into the canal, would it not? It would have to?

A. No, I understand that the water that we mentioned as probably being absorbed by this formation would have to pass into the canal?

Q. It would have to reach the porous stratum to proceed on down?

A. Why, there isn't any indication that this stratum was cut by the canal the whole length of it; only at this point (indicating).

Q. We are talking about the place of the break now. [291]

A. Yes. Well, that point, there was a very little bit of that area exposed, and consequently only that area would be involved in the question, as I understand.

Q. But you have pointed out that the canal is lined on the outer bank, so the water would necessarily have to pass through that lining, is that not correct?

A. Oh, no, I don't think I testified to that. I testified that it was my opinion that the water would follow under the canal down this porous stratum.

Q. It would leave the porous stratum and then return to it, is that what you mean?

A. I mean that where the canal crossed the porous stratum it was exposed on the side and in the bottom of the canal.

(Testimony of Allen C. Merritt.)

Q. But we are talking about the return of the water, the absorption in the upper bank. I am interested in how at this time, this spring, it came from the upper bank down to the place to which you refer, the seep area?

A. By the simple process of draining out of the porous stratum.

Q. Well, how did it get into the lower part of the porous stratum, as disclosed by your chart? Would it not necessarily proceed through the lining of the canal, the lower side lining?

A. Why, if there was a direct flow into the bank of the canal it would probably flow into the lining of the canal.

Q. I am talking about when the canal is dry. I want to know [292] how the water comes from the stratum in the upper bank to the stratum in the lower bank so that it would proceed down, as you say, and appear out in the field?

A. During the time that the water is in the canal this stratum is exposed to that moisture and it would have absorbed a considerable amount of it.

Q. Goes through the lining of the canal?

A. Why, not necessarily the lining of the canal. It is exposed in the bottom of the canal.

Q. Still you are not responding to my inquiry. My inquiry is, when the canal is empty how the water proceeds from the so-called absorption area on the hillside of the canal down through the porous stratum, as you have disclosed on your—You de-

(Testimony of Allen C. Merritt.)

pict there—how it gets down into there from the upper side?

A. As I explained, the stratum would become saturated.

Q. When the canal is dry it is saturated?

A. Well, after the water is turned out it still retains the water that is in the stratum.

Q. Well, doesn't the canal intersect the porous area, according to your chart? A. Yes, sir.

Q. Then is there not a break in the porous area?

A. In the canal? You mean that there is a break in the porous area in the canal? [293]

Q. Yes, as depicted by your picture?

A. I projected the slope through the canal, showing that the canal had cut through the porous area, which it did.

Q. That is right.

A. In the exhibit—

Mr. Lytle: Eighty-one.

A. —81 we have indicated, diagrammatically only that there probably was a water course below it, that the water in the canal could saturate that same area and flow out for some considerable time after the water is turned out of the canal.

Q. (By Mr. Veeder): But that still does not answer the question of how the water from the upper part gets into the porous area of the lower part and proceeds down through that porous area?

A. This porous stratum is exposed along the bank of the canal for a considerable distance. It could follow it without necessarily following under the bank at that particular point. It could follow,

(Testimony of Allen C. Merritt.)

it could be absorbed along the bank of the canal for a considerable distance above and below the break and still hold a lot of water after the water was turned out of the canal.

The Court: The Court at this time will suspend until Monday morning at 10:00 o'clock.

(Whereupon, at 11:40 o'clock a.m., Friday, June 11, 1948, the trial of the above-entitled cause was suspended, the Court taking an adjournment to 10:00 o'clock a.m., Monday, June 14, 1948.) [294]

Monday, June 14, 1948, 10:00 A.M.

The Court: The witness resume the stand.

ALLEN C. MERRITT

thereupon resumed the stand as a witness in behalf of the plaintiffs herein and was examined and testified further as follows:

The Court: Proceed with the cross-examination.

Cross-Examination

(Resumed)

Mr. Veeder: Your Honor, it would be helpful if I would approach the exhibits to point to several of them.

The Court: All right. If you do that, everybody keep your voices up so we can all hear.

Mr. Veeder: Yes, sir.

The Court: That is the danger about getting close to the exhibits.

(Testimony of Allen C. Merritt.)

Q. (By Mr. Veeder): Mr. Merritt, I wish to refer to Plaintiffs' Exhibit 70 and inquire of you as to the relative location of the stratum shown in that exhibit as it relates to the place of the break.

A. I believe it is about, oh, maybe 1500 feet north of the break where that——

Q. Well, along the canal how far do you think it would be? [295]

A. Well, I couldn't estimate that, but it must be four thousand feet or more along the canal, maybe five.

Q. It might well be a mile?

A. Well, possibly, along the canal, yes, sir.

Q. It is downstream from the break, is that correct?

A. Yes, sir.

Q. Now, would you compare the stratum disclosed in Exhibit 70 with the area in 71, which is at the point of the break, as I understand?

A. I believe they are very similar. I think there shows a little more soil exposed on the bank there in 71, maybe, than——

Q. Well, isn't it true, Mr. Merritt, that this discloses outcroppings of a great deal of sandstone in Exhibit 70?

A. Well, some of it is stone and some of it is just sand.

Q. But it is wholly different from this soil in 71?

A. Oh, not wholly so, no, sir.

Q. Well, this is a different type of——

A. Oh, I don't think I could say there is any

(Testimony of Allen C. Merritt.)

particular difference. Generally, it is the same general formation.

Q. The same? A. That is, somewhat.

Q. Somewhat the same? A. Yes, it is sure.

Q. Would you approach the exhibit, Mr. Merritt, for the purpose of viewing certain strata appearing in your exhibit. [296] Is it not true that the stratum to which I am pointing on Exhibit 70, which is far to the left on that exhibit,—Isn't it true that these two strata approach each other and actually intersect in the picture? This stratum here? Observe this stratum above and this one here (indicating).

A. Yes, sir.

Q. And they do intersect, do they not?

A. Well, I didn't notice anything of that kind.

Q. Well, observe on the photograph now.

A. May I make this—that you mean they come together in this form?

Q. They do. They come together, do they not?

A. Well, I observe—I didn't notice that they did.

Q. Well, do you notice that they do now from the photograph?

A. No, I can't say that they do. The general dip is about the same across there.

Q. But they are not absolutely parallel, isn't that correct?

A. I didn't take any measurements to see that.

Q. Well, can't you observe from looking at it?

A. Well, not, I wouldn't say, from the photograph.

(Testimony of Allen C. Merritt.)

Q. That they designated 70 there. I wish you would refer to this same exhibit.

A. I can't say that I see any great difference in the general veining there.

Q. Well, these two strata as shown in the exhibit, isn't the [297] inclination of the lower stratum much greater than the upper stratum?

A. Well, I don't believe I could testify on that. I didn't make the examination with that observation in view. I merely made these photographs to indicate that there was a bedding.

Q. There was a bedding. Your concern was not whether there was a continuous inclination of all the strata at the same degree? Observe that. Is that not different from that above there (indicating)?

A. It might vary slightly. That is quite a distance from the break, and the inclination as examined indicated the break was somewhat parallel to that——

Q. But there were variations, were there not?

A. Oh yes, certainly.

Q. There must be?

A. As in any formation of that type.

Q. Mr. Merritt, what was the inclination as disclosed by your pervious stratum in Exhibit 80?

A. About nine degrees. There were several measurements and they averaged up close to nine degrees.

Q. And this pervious stratum as disclosed on Exhibit 80 is nine degrees?

(Testimony of Allen C. Merritt.)

A. I think that is what shows on the map.

Q. Will you take this protractor and test the degree of inclination as shown on the map? Is that not 10? Now you [298] have moved the zero up, Mr. Merritt.

The Court: Now, just let him do it, if you are asking him to do it.

A. I believe that the average shown on that plat may vary as much as 20 to 30 minutes in angle, as indicated there, and I do not see any place that that protractor shows over about 9 degrees 40 minutes.

Q. (By Mr. Veeder): There is variation shown between this line here on Exhibit 80 as the stratum progresses up towards the canal, as you describe it; there is variation of the 9 degrees to which you testified?

A. I think I testified to the effect that a measurement was taken from the two points of exposure, the two different points, by taking levels, and that after taking several levels we thought the maximum variation was approximately 42 minutes one way or the other.

Q. But on the question which I have asked you, that as disclosed by this Exhibit 80 which you have entered in the evidence, that there is in fact a variation of the stratum as it progresses toward the canal?

A. Yes, I think there is a variation in the stratum. I believe there is. I don't think that any stratum would be absolutely level or maintain any constant grade or slope.

(Testimony of Allen C. Merritt.)

Q. And variation is disclosed here?

A. Slight variation, yes. [299]

Q. Well, the slight variation in the distance in which you took your levels is highly important, is it not? A. Well, I really can't see it.

Q. Well, would it not make a difference as to where the sandy stratum as you have drawn it enters the canal?

A. I suppose it would if you——

Q. It would?

A. If you project it from a lower point to a higher point in several hundred feet it might make some slight variation.

Q. It would make a variation?

A. Certainly. It couldn't be absolutely true. It doesn't remain true.

Q. Referring to your Exhibit 70, would you describe this work on the lower bank of the North Canal? A. You mean 74?

Q. Seventy-four,—I beg your pardon, 74.

A. Well, it appears to have the bank lined with earth and then stabilized with gravel.

Q. It has a lining in the bottom of the canal, is that correct?

A. Well, the lining in the bottom of the canal is not exposed. On the sides the bank, as shown in that photograph, shows that there is a lining and that it is——

Q. It intervenes between the water and the pervious stratum to which you refer? [300]

(Testimony of Allen C. Merritt.)

A. I hardly think that that is a clear question.

Q. It does cover here the pervious stratum?

A. Well, the bank does. What is in the bottom I don't know.

Q. You don't know? A. No, sir.

Q. Now, referring back to your Exhibit 80, your pervious stratum as shown in the picture discloses that the water is not separated from the pervious stratum, is that not correct? There is no showing, in other words, that there is a lining between the pervious stratum and the water?

A. Do I understand your question that this line represented in 74 was not shown in this (indicating); is that what you mean?

Q. That is correct.

A. Well, this was done for diagrammatic representation of that. We have no question about covering that with this lining. That was merely a diagram to show——

Q. This does not show, in other words, the present status of the bank, the area along here on Exhibit 74 to which I am pointing? This does not disclose that?

A. I did not attempt to disclose that.

Mr. Veeder: Your Honor, I submit that this should be stricken from the record as not disclosing the true status of the canal.

The Court: Oh, denied. He is trying to prove a thesis. [301] As he says, it is for diagrammatic purposes and to illustrate his theory. I understand his theory, if you do not.

(Testimony of Allen C. Merritt.)

Mr. Veeder: Well, as long as the record shows that there is the difference.

The Court: Oh, surely. I understand perfectly what this is all about. If I didn't I wouldn't be competent to try the case. As to whether I agree with that theory or not is a different matter.

Q. (By Mr. Veeder): Do you know the length of the North Canal, Mr. Merritt?

A. No, sir, I do not.

Q. You testified that good practice would have been to line the upper bank of the North Canal, as I recall.

A. I believe my testimony was at this particular point we have under discussion.

Q. What would be the cost of lining that area of the canal?

A. Well, I have made no estimates of cost. There were no questions of cost involved.

Q. Would you state that again, sir?

A. There was no questions of cost involved so far as I was concerned.

Q. Is cost not a factor in determining the type of construction used in a canal?

A. Why, certainly. Economic soundness would be based on the cost. [302]

Q. And it is important, then, in considering the type of construction which you would use?

A. Yes, sir.

Q. Now, in a canal seventy miles in length through an area which you have described as gen-

(Testimony of Allen C. Merritt.)

eral in character, that is, the Idaho and Payette area formation, that would be a very expensive process, would it not, in general?

Mr. Lytle: We object to that as not proper cross-examination and speculative.

The Court: Oh, I think it is all right. It is proper cross-examination.

Q. (By Mr. Veeder): Would you proceed?

A. I wish you would please state the question.

Mr. Veeder: Would you read the question, please.

The Court: Read the question.

(Pending question read.)

A. Yes, it would be expensive, but it may not be necessary the entire length of the canal.

Q. It is a factor, however, in determining whether cost is a factor in making that determination? That is, as a construction engineer, you would exercise your discretion as to whether you lined or did not line the inner bank, depending on——

A. Certainly, that would be my responsibility.

Q. It is a discretionary function of the highest type as to [303] whether you would line both sides of that canal?

A. I would say yes, sir.

Q. It is a responsibility of an engineer—It is a responsibility assumed by an engineer as to whether he lines or not lines, in his discretion?

A. I would say so.

Q. And in making that discretionary determination he must take into consideration the cost factor?

A. Certainly.

(Testimony of Allen C. Merritt.)

Q. The fact that the segment of the North Canal breached stood for approximately eleven years prior to the alleged failure is evidence of reasonable construction, is it not? A. I would say so, yes, sir.

Q. You referred to earth movements in this area, did you not, Mr. Merritt? A. Yes, sir.

Q. Those movements would effect the stratum throughout this area, would they not?

A. Yes, sir, they would.

Q. That makes calculations as to the dip of the stratum rather hazardous, does it not?

A. Well, I think any study of the terrain over which the canal is constructed would necessarily take into consideration any possible previous earth movements in water courses.

Q. The fact that your Exhibit 81 shows a decided fault [304] evidences the hazard in attempting to state with certainty the continuity of the porous stratum to which you refer?

A. I don't quite get your question.

Mr. Veeder: Would you read the question, Mr. Reporter.

The Court: Read the question.

(Pending question read.)

A. I think the exposures shown there would indicate that there might be a dangerous stratum encountered in that construction.

Q. That is not responsive, Mr. Merritt, to the question. The question was as to the hazard of

(Testimony of Allen C. Merritt.)

stating with certainty the continuity of the porous stratum.

A. I would say that would be a matter of judgment on the part of the engineer, to make a statement as to any hazard or the extent of it.

Q. Perhaps you don't see what I mean. There is a disclosure in your Exhibit 81 that within the short space shown on the exhibit there is a variation between the two segments of porous stratum of perhaps a half-inch.

A. Yes, I believe it shows approximately that.

Q. That evidences a fault, in other words, in the stratum in question?

A. Well, there is a difference at those two points. That may be due to the rake of the formation across the map or along the slope, or it may be due to a movement in the underground [305] or separating formation.

Q. All of which would affect the continuity of the stratum? A. Certainly.

Q. And what was the strike of the stratum that you depict on the Exhibit 80?

A. Oh, approximately north and south.

Q. Did you ascertain the strike?

A. Well, the strike varies.

Q. Well, did you ascertain the strike?

A. No, only approximately exposed.

Q. How did you ascertain the strike?

A. It is exposed in Exhibit 73 as almost parallel with the water line; in Exhibit 74 it shows it exposed, and in Exhibit 77.

(Testimony of Allen C. Merritt.)

Q. Well, what is the degree of strike in that stratum?

A. The strike is supposed to be in a level plane.

Q. Do you think that this strike is a level?

A. Well, I would say that it follows the contour of the country generally, this formation does.

Q. The contour of the country in general, though, is not on a flat plane, is it?

A. Oh, no. It slopes toward the valley.

Q. Are you acquainted with Lahee as an authority on geology?

A. Yes, I have Lahee's book.

Q. You accept him as an authority on it? [306]

A. Yes.

Q. Would you agree with this statement made by Lahee,—and I am quoting from his text on Field Geology, Page 460: “Unless the strike of the inclined bed is known and the measurement of a dip is made at right angles to the strike, the observed inclination obtained as described above will not be the true dip; it will be a component of the dip measured in a certain direction not perpendicular to the strike.” Do you agree with that statement?

A. I believe that is a pretty good statement, yes, sir.

Q. In other words, if you don't have the inclination—If the degree of the strike was not known, you could not ascertain the dip with any certainty?

A. I think that is a generally accepted principle in geology. The reference there, I would say, is more in the nature of mining geology, where strikes and dips are more pronounced.

(Testimony of Allen C. Merritt.)

Q. Well, is it not, in showing the dip as you have on your Exhibit 80? Unless you have the strike it would simply be the component of the dip, it wouldn't be the true dip?

A. I think that is—I think that is right.

Q. In other words, one factor, namely, the strike, was not known when you arrived at what your conclusion of what was the dip of that stratum?

A. I think I testified that the exposures indicated in 77 and 73 exhibits gave a general idea of the structure. It [307] followed approximately the axis of the canal.

Q. That, Mr. Merritt, is not responsive to the question. The question was whether you had determined the degree of inclination of the strike prior to arriving at your conclusion with respect to the dip?

A. I believed that I had assumed the strike did——

Q. What was the degree of inclination that you assumed?

A. I don't believe that I took the angle of the exposure in the canal. I have shown it by difference in elevation only.

Q. The proposition which I quoted into the record from Lahee was not compliant to that proposition as to the method of reaching the inclination of the ditch, is that correct?

A. I believe that that expression is generally accepted as a basis for determining those matters when exactness, extreme exactness, is essential, but

(Testimony of Allen C. Merritt.)

in this case very exact measurements were not essential. They easily could have been made. The questions involved did not seem to me to be essential that great accuracy in determining those factors was essential.

Q. Well, is it not essential in the construction of a canal to know whether a stratum of porous materials enters or does not enter the canal?

A. I think that is right, yes, sir.

Q. Is it not possible that—Is it not probable that if the degree of the dip were different on the stratum in question that it would pass well beneath the bottom of the canal? [308]

A. My observations indicate that it was exposed in the bank of the canal.

Q. But if there was a variance on the degree of the stratum it might pass beneath the canal?

A. Yes, that might be the case.

Q. You made no drillings to ascertain definitely that it was the same stratum?

A. It was the same——?

Q. The same stratum which you observed in the hillside bank of the canal?

A. And what other stratum?

Q. Well, and the stratum to which you testified which is disclosed on the exhibit?

A. Well, I, of course, did not have any opportunity to drill into that, but the exposures at two points are indicated on this Exhibit 80.

Q. You took just two outcroppings, however, in making that ascertainment?

(Testimony of Allen C. Merritt.)

A. Oh, no, not by any means. We took several.

Q. But you did not try to ascertain that the same stratum which you indicate on the upper bank of the canal proceeded throughout as you depict it in Exhibit 80?

A. I didn't take any drillings.

Q. Can a stratum be both permeable and exhibit capillarity at the same time? [309]

A. I think that would be a very hard thing for me to answer. It would vary with all the material involved.

Q. Would you say that again, sir?

A. It would vary with the material involved.

Q. The material involved here in the stratum is very permeable?

A. Yes, sir, I would say it was permeable. I wouldn't say very permeable.

Q. What is the—Go ahead. Would you finish what you were saying?

A. I didn't state it was very permeable. I said it was a permeable stratum.

Q. The capillarity of that stratum is reduced by reason of its porosity, is that not true?

A. To a certain extent, I would say so, yes, sir.

Q. It would reduce the amount of capillary action which would cause the storage in the upper bank to which you refer?

A. Well, I would hardly say that the storage was dependable on capillarity. It may be due to gravity flow of the water.

Q. I didn't get that.

(Testimony of Allen C. Merritt.)

A. It may be due to flow by gravity of water into the stratum.

Q. Do you say that water flowed into that stratum which sets at 9 degrees?

A. Well, there are openings in it. [310]

Q. But does the water flow into it and reservoir in there?

A. Well, that is something that I was unable to determine, but from indications on the surface it certainly must have stored or absorbed, by some means, either by reservoiring or capillarity, a certain amount of water.

Q. Can you estimate the amount of water that would be stored?

A. No, I haven't made sufficient investigations to determine the degree.

Q. How would the water return from the upper bank of the canal to the stratum disclosed on the lower bank, in view of the fact that your picture, your Exhibit 80, discloses the stratum cut, intersected, completely by the canal, and the fact that your Exhibit 74 discloses the canal is lined?

A. May I try and clarify that by stating that the lining is definitely on top of the stratum and that——

Q. May I ask, the line,—what line is that?

A. The lining.

Q. The lining.

A. ——indicated on 74 lies on top of it.

Q. That is correct.

(Testimony of Allen C. Merritt.)

A. And, undoubtedly, from the testimony I have heard here, there was a trench cut through this porous stratum to cut off any flow when the break was repaired, and that bank has been built on top of it, which was good practice. The other bank is [311] still exposed to the percolation and possible flow of water, the extent of which we were not able to determine. I never saw the canal before March at that point.

Q. I hate to be pressing you, Mr. Merritt, but you still do not explain how the bank storage can enter the sealed-off stratum below the canal.

A. It will be observed, as I have mentioned in 74, 77 and 73 that there is a slight rake to the formation upstream in the canal. If that continues for some distance to the south the water could flow by gravity.

Q. That would not be at the break, however, Mr. Merritt?

A. That is something that I am not in a position to say, because I had no means of tracing it other than the indications of moisture on the hillside below the ditch.

Q. Did you, when you were there in March, observe any water in the canal that would be attributed to storage in the upper bank? A. No, sir.

Q. What becomes of upland precipitation, that is, the rain and the snow in the back hills, the upland beyond the canal?

A. Well, I presume it flows by natural water courses off to lower elevations.

(Testimony of Allen C. Merritt.)

Q. Does it not enter the ground and become ground water?

A. Oh, I think that is the case, yes.

Q. There is an inclination, is there not, towards the river? [312]

A. Yes, sir.

Q. And the water would proceed down from that back-hill country, would it not?

A. I would say so.

Q. And is it not possible that it would arise to the surface as it approaches the lower levels of the valley of the river?

A. Yes.

Q. It might cause what appears to be springs and seepage?

A. Oh, yes.

Q. In passing along the canal did you observe structures placed beneath the canal along the natural draws to handle natural precipitation?

Mr. Lytle: I object to that as calling for a conclusion on matters not in evidence.

The Court: Well, I think it is proper cross examination of an expert witness to ask him about a conclusion about 'most anything in connection with the subject.

A. To clarify the question, do I understand that you mean structures to carry waterways under the canal,——

Q. (By Mr. Veeder): Yes, sir.

A. ——or across the canal?

Q. No, no, I don't mean across it. I mean under it.

A. I didn't see any structures of that kind in the vicinity of this break.

(Testimony of Allen C. Merritt.)

Q. Did you observe, were you looking for, any such structures? [313]

A. Yes, I was around in the draws and other places where there was evidence of moisture.

Q. But you did not observe any?

A. I didn't see any structures that I would say were designed for that purpose.

Q. Would you state where the canal is located with reference to the point at which you were standing when you took the picture across there in 79?

A. I was above the canal.

Q. About how far would the canal be from the point at which you took the picture?

A. I think we noted around 200 feet or such a matter above the—that is, west of the canal.

Q. Now, referring to your Exhibit No. 82, there is that farm ditch down below, is there not? That is drawn in there?

A. Pardon me, I didn't understand.

Q. I say, there is a farm ditch drawn into your Exhibit 82 which appears to really surround the seeped area to which you refer?

A. There is a small ditch there, yes, sir.

Q. And on that ditch there were located some trees, were there not?

A. Yes, sir.

Q. Is that one of those trees—you might step to your Exhibit 79—is that not one of the trees on the ditch, the [314] farmer's ditch, that tree immediately in front of the camera?

A. This (indicating)?

Q. That tree there, yes, sir.

(Testimony of Allen C. Merritt.)

A. That is below the ditch, yes, sir.

Q. That is below the farmer's ditch?

A. Oh, I don't know about that. I wouldn't testify to that.

Q. That tree, however, is at east two hundred to three hundred feet from the camera?

A. Well, I wouldn't be able to say that. That tree may be some distance below the canal.

Q. It may be some distance? A. Yes, sir.

Q. That is all on that question. You have stated that the stratum varies in porosity, have you not?

A. Yes, sir, I think it does some.

Q. At some points it is rather tight, is that correct?

A. Well, I would not be able to say that, the degree of tightness, what is meant by "rather tight," or the degree of porosity. I could not——

Q. A sandstone stratum, however, might be sufficiently tight or sufficiently impervious that constructing across it might be good practice?

A. Well, I think that would occur in various localities along the canal. If in the judgment of the engineer he decided that it was sufficiently tight he could construct his [315] canal across it.

Q. And it would be a highly discretionary determination on the part of the engineer, viewing it upon the ground where he stood, whether a treatment would be necessary; is that not correct?

A. His judgment would have to be depended upon, yes, sir.

(Testimony of Allen C. Merritt.)

Q. It is a discretionary matter by the man in charge of the construction?

A. Well, it would depend entirely on how the construction was carried on, whether it was discretionary for him to make changes in the specification or the design at the time the construction was in progress or whether he would be required to carry to a certain line or certain depth regardless of that sort of thing. That is something that I couldn't answer.

Q. You couldn't answer?

A. That is what I would say would be the case if I were handling it.

Q. It would be a determination on your part?

A. Yes, sir, I would say, or a recommendation at least.

Mr. Veeder: That is all.

Redirect Examination

By Mr. Lytle:

Q. You have testified that this area was a lake bed. Now, what area, in general terms, are you referring to in that description? [316]

A. Well, the various formations generally named for a formation. Are you referring to the name that is applied to this area?

Q. No, the question, Mr. Merritt, was, that in your cross examination and in your direct examination you named this area, you said this area was known as lakebed. Now, what area do you mean?

(Testimony of Allen C. Merritt.)

A. I mean the area surrounding this valley around the Snake River, back up towards Payette, in that area in there, and on down the valley, has at one time been a lakebed, generally accepted by geologists that that was the condition.

Q. And you also mentioned some streams. Now, as I understand you, the streams in the area and the lake in the area, were they concurrent or were they covering different periods of time?

A. The streams are the remaining water courses after the lake has subsided.

Q. Yes. I call your attention to Plaintiffs' Exhibit No. 80. Is that incline of approximately the same incline as indicated in other points along and above the canal zone?

A. Yes, sir, it corresponds closely to the exposures in 70 and 79.

Q. Now, referring to No. 70, and noting the incline evident in that picture, in what direction is that incline pointing?

A. Approximately east, toward the valley. [317]

Q. Is—are the incline shown in 70 and the incline in 80 comparable one to the other?

Mr. Veeder: I object, your Honor. The witness has testified that he took the picture for a general purpose and made no specific investigation of the area depicted in 70.

The Court: Maybe he will say something else now. He has a right to testify on the subject. You went into it in cross and he has a right to ask

(Testimony of Allen C. Merritt.)

redirect questions on the subject. That is a matter of argument, Counsel, of the view you take of it. I may take a different view of it. I am not saying that I do. Anyhow, he has a right to testify on the subject that was raised on cross. Go ahead.

A. I believe I testified that the first picture that I took was No. 79, with the idea of indicating the general dip of the formation at that point, not that the photograph shows the exact dip, but measurements on that dip taken by me and Mr. Bronken indicate that the dip of the formation exposed in the wash and in the bank of the canal are approximately the same. I believe I testified the variation, according to several measurements, amounted to 42 minutes of angle.

Q. (By Mr. Lytle): I call your attention to Exhibit No. 81. You have indicated differences in level or altitude of the two faces of the stratum, the one on the west side of the canal and the other on the east. What would that indicate?

A. Pardon me; do I understand you to say on the west side of [318] the canal and on the east side of the canal?

Q. Well, on the one on the left side of the drawing and the other on the right side of the drawing.

A. Oh. Yes, sir, there is an indicated dip in elevation there.

Q. Would that give any other indication to you?

A. Yes, sir; the object of that sketch is to indicate that there is a difference in elevation between those two points in the exposure in the canal bank.

(Testimony of Allen C. Merritt.)

Q. And what could occasion that?

A. Possibly some earth movement.

Mr. Lytle: Mr. Bailiff, I wonder if we might have that board with the three exhibits turned over so I can see it this way.

Q. Calling your attention to Exhibits Nos. 68 and 69, did you find any other evidences of earth movement or movement of the stratum?

A. I believe that is indicated in Exhibit 73.

Q. Do you find any further indication of that in 68, back of you?

A. I think it is indicated about the center of the photograph.

Q. And what is disclosed there?

A. There is some gravel embedded in the formation and falling out of it, disintegrating.

Q. Well, what is meant by the strike of a stratum? [319]

A. I think it is generally conceded that it is the horizontal plane that the slope intersects, the point where the slope intersects a horizontal plane.

Q. And what is meant by the dip?

A. It is the slope of the formation across that plane.

Q. And what is meant by the rake?

A. Where the formation would vary in its contour. The slope might form a curved surface and in crossing that surface there would be a dip, possibly, up on one side and down on another. That would be the rake if the dip was taken, say, at a central point in that. The rake would follow approximately the

(Testimony of Allen C. Merritt.)

same direction as the strike but somewhat vary from it. Rake is a term that has been applied rather indefinitely to fit that condition.

Q. Now, using words that I can really understand, in what direction is the incline downward of this strike?

A. The dip is east and the rake as we found it is to the south somewhat.

Q. You stated that you did not take the degree of the incline shown by the pictures taken in the bottom of the canal, but did so by taking elevations.

A. Yes, sir.

Q. Referring to No. 76,—— A. Yes, sir.

Q. ——is that the downstream or upstream end of the stratum [320] which is shown in the pictures and in the proximity of the break?

A. Mr. Bronken is standing at approximately the upstream end.

Q. Now, referring to 74, which end does that indicate? A. That is the downstream end.

Q. And that would be to the north?

A. Yes, sir.

Q. Now, approximately how far north is the narrowest portion toward the background of that picture from the break?

A. The narrowest part of the canal?

Q. No, the narrowest part of the stratum exposed?

A. How far north of the point where the break occurred?

(Testimony of Allen C. Merritt.)

Q. Well, let's get this straight on this. Is 74 looking up or down the canal?

A. Up the canal.

Q. All right. Now, how far from the break is the narrowest portion of the stratum as disclosed in 74?

A. Well, the stratum is only exposed about at the point—about the center of the picture; probably the south end of the break, or very close to it.

Q. Now, referring to 76 again, as we face the figure holding the rod are we looking upstream or downstream? A. Upstream.

Q. Are we looking in the same direction that is disclosed in [321] Exhibit No. 74?

A. Yes, sir.

Q. Now, that stratum exposed there, how does it appear as you go downstream from Exhibit No. 73?

A. Going downstream it narrows down and is covered by the canal bank to a certain extent and rises somewhat above the canal bank, as indicated in 77.

Q. From the point of the break to the area disclosed in No. 70, is the line of the ditch straight or crooked and wandering?

A. It is very crooked and, as shown quite clearly in No. 79, it is a long distance around into those several gulches along there.

Q. And the lineal distance I believe you have given us from the point of the break to the highest point of the incline and outcropping of the stratum as shown in 70 is how far, did you estimate?

(Testimony of Allen C. Merritt.)

A. I didn't measure it, but I should judge it was not in excess of 1500 feet, probably less.

Q. Can you estimate the elevation of the area shown in 70 over the elevation of the canal?

A. I didn't get the question quite clear.

Q. How much higher is the land of the area shown in 70 than the canal itself? Can you estimate it?

A. Well, this is the canal (indicating). [322]

Q. Yes.

A. Oh, it will vary somewhat. It may be, vertically, 50 or 60 feet, maybe more, a little more, than that. I didn't measure it. I would say the point in the center of 70, it might be 60 or 70 feet of slight slope, and down on the right side it isn't quite so high; it is a little more abrupt, the slope of the hill, at that point.

Q. Would you say that the stratum shown in 73 and 76 and 77 and 74 has capillary capacity?

A. Yes, sir.

Q. Now, what would you say of the exposed area as shown in 73 beneath that stratum?

A. Well, I would say it was porous, it might provide an open channel for flow of water.

Q. In other words, do I understand you that that would accept a flow of water rather than receive a flow of water?

A. Yes; I climbed up that bank and ran my arm in a hole there as far as I could reach. It was open.

Q. What is the distance between the point in 68

(Testimony of Allen C. Merritt.)

where you last observed this exposed stratum and the stratum exposed in No. 73?

A. Oh, it is about 140 or 150 feet; a hundred and fifty, maybe a little more than that. The No. 80 exhibit is to scale, so far as the distance between the point where it is exposed in the cut and where it is exposed in the bank. [323]

Q. Now, the exposure in 68, is that the exposure closest to the canal, or did you find an exposure closer than that?

A. Well, there is—I would say that is practically as close as the—that is the left fork of the wash.

Q. Pointing to Exhibit No. 82?

A. Yes, sir. The right fork is practically the same distance from the canal.

Q. Yes; and that distance to the exposure on the mountainside bank of the canal was about how much?

A. From that point to that point (indicating) was about 150 or 160 feet.

Q. From the examination you have made of the area in general and the detailed examination you have made, is it probable that there would have been much if any change in that incline in that distance?

A. Well, I wouldn't think there would be. It would be reasonable. The bedding is pretty even.

Q. On your cross examination you stated that it was reasonable under the circumstances to get water to the lands of the project as this canal is constructed. In that answer were you referring to the

(Testimony of Allen C. Merritt.)

general lay and outline of the system, or were you referring to the particular area under investigation?

A. The general outline of the area.

Q. And if in the process of constructing this canal as laid out you came to an area showing a stratum not only subject to [324] saturation but to a stratum subject to percolation or the flow of water as well, would the exercise of sound engineering require a lining at that point?

A. It would be my judgment it would, yes, sir.

Q. Would you think that would be a matter of discretion?

Mr. Veeder: I object, your Honor,—Well,—

The Court: You asked him that question yourself.

Mr. Veeder: I withdraw the objection.

A. I believe if it was my responsibility to build a ditch like that I would try to take every precaution to see that the water got to the point I wanted to use it.

Q. (By Mr. Lytle): And that precaution would dictate that you would line any pervious or leaky formations, is that correct?

A. Well, that would cover it.

Q. And with that evidence in the canal, in the banks of the canal, would that evidence permit you to reach the conclusion as an engineer that the water in the canal would—that water would reach the land and the canal would serve its purpose without taking some extra precautions in connection with that?

(Testimony of Allen C. Merritt.)

A. I should say that every precaution should be taken that would deliver the water at that point.

Q. What could and should have been done at that point?

A. As I have heard this testimony, there was a bank built across this formation and it washed out and was replaced and [325] a core wall put in it,——

Q. Yes.

A. ——all of which would indicate that underneath the canal there was a weak spot in the formation, and the bank as exposed at the time of my examination seems to indicate the same thing. The upper bank is still exposed, with no lining or protection against percolation or seepage.

Q. Well, is it your opinion that a key trench should have been cut and a core installed in the first instance?

Mr. Veeder: I object, your Honor. There is no evidence that that was not done in the first instance.

The Court: Oh, yes, there is.

Mr. Lytle: Yes, there is.

The Court: Definite evidence that there was no core wall constructed there, definite testimony by one of the witnesses that when the bank was washed out they found no evidence that there had been any core wall before. Go ahead.

A. I would say that it would be a normal procedure to cut a trench and fill it with impervious material under the bank. The conception of the matter is that the dirt is removed from the slope on a sloping side-hill, a bank built from that material

(Testimony of Allen C. Merritt.)

which has not been and can't compact perfectly and laid on a formation on the side-hill; when a weak spot is encountered it would be necessary to take some precaution to prevent seepage in that area. I would say yes, that it is my [326] judgment that a core wall of some sort should have been built through there.

Q. (By Mr. Lytle): And along the mountain side of the canal does that area disclosed along there indicate that anything should have been done?

A. Yes, I would have recommended or insisted, if I had been in charge of the work, that there be a lining placed on that side that was equally as impervious as the downhill side.

The Court: I will say, in that connection, the witness Terhune was the one who testified on that.

Mr. Veeder: Thank you, your Honor.

Q. (By Mr. Lytle): And would the character and nature of the soil and strata in the bank side of the canal be disclosed each year when water was out of the canal?

A. The condition as it existed when I examined it was indicated by these various exhibits, Numbers 73, 79, 77, 74, and it would appear that it was easily observed there.

Q. Can you state or give your estimate of the difference in elevation from the point where you first observed the seeped ground as disclosed in Plaintiffs' Exhibit No. 82 and the area above and west of the canal?

(Testimony of Allen C. Merritt.)

A. Above the canal is clearly indicated in Exhibit 75 as the rim of the bench. Outside of a slight depression immediately back from the crest of the rim, it is fairly level ground, but there is a little depression back there, dry. [327]

Mr. Lytle: Now, I think the witness did not understand my question, your Honor. May I have the Reporter read that question?

The Court: Read the question.

(Last question read.)

A. I believe that is shown in Exhibit 80, these elevation lines, to be 70 to 80 feet above the point where it was exposed in the wash.

Q. (By Mr. Lytle): Do you know the average annual precipitation in this area?

A. Well, I don't have the figures now. I think they are easily available. It is considered an arid region.

Q. Yes. Will you get those figures and have them available at another session of this court?

A. Yes, sir.

Q. Counsel asked you if you made any examination or study to determine whether there were structures beneath the canal to carry mountainside water underneath the canal. Did you find any such?

A. I didn't find any. There may be some along the canal in different localities.

Q. Yes; but in the vicinity of this break I believe you testified you saw live water in March.

A. Yes.

(Testimony of Allen C. Merritt.)

Q. Did you follow or observe where that water came from? [328]

A. Well, it appeared in the bottom of the gulch below the ditch bank.

Q. Was there any structure at that point underneath the ditch?

A. I didn't see any. There was none on the downstream side, and certainly was none on the upstream side of the ditch, where it was banked on both sides to carry it across the canyon.

Q. Did the strata as shown in 73 and 79 appear of the same type and character?

A. Yes, generally.

Q. Referring to Exhibit No. 82, where did you observe the evidences of greatest seepage?

A. From this line, which is the——

Q. When you say "this line," identify it with some exactitude.

A. This line parallel and some 40 or 50 feet from the canal bank, east of it, and south and along to the east-and-west line, following a slight elevation, ridge, across on the north side of the wash, along this irregular line which represents approximately the north boundary, and down to the east side,—it indicates that there was an excess of moisture there. Weeds and other vegetation were present. At the south boundary was a fairly good stand of alfalfa. There was some——

Q. You mean, when you say "south boundary"——

(Testimony of Allen C. Merritt.)

A. Of the tract I have just described. [329]

Q. Uh huh.

A. There was a fairly good stand of alfalfa there.

Q. Will you take a pencil and indicate by a cross or a series of crosses the area of greatest saturation or seepage?

A. I believe that I have attempted to do that in this area that I have just described represented by the line on the exhibit.

Q. All right. Now, within the boundaries of the outline would you say that all of that ground was saturated to a similar or like degree?

A. At the times that I was on the ground there wasn't any particular water standing in it. There was indication that ordinary crops could not exist on that, due to the excess water; and also in the wash, by putting your hand into the edge of the sand stratum it was still moist, and was on Friday, —I examined it again—wash was still moist in that area.

Q. In the course of your examination of this area were any porosity tests taken by you or your associates with you in study? A. Yes, sir.

Q. Just show what was done.

A. Oh, we took samples of the material and placed them in the water to show the effect of moisture on them.

Q. Who other than yourself conducted those tests? [330]

A. Mr. Bouton.

(Testimony of Allen C. Merritt.)

Q. Would the fact that leakage occurred along this section of the stream to the extent that below the canal there was live or moving water indicate anything, from an engineering standpoint, what should be done with relation to this area adjacent to the leaks?

A. I would say I would make an examination as to the stability and porosity of the canal banks, to make such repairs as necessary.

Q. What would be needed to be done from an engineering or construction standpoint?

A. I believe I testified that it would indicate that a lining should be placed on both sides of the canal, instead of just one side.

Q. Yes. The testimony discloses that the valley or lower side of the canal is now lined. It is your opinion that if the mountain side of the canal were also lined it would stop this leakage condition?

The Court: Oh, no, Counsel. You have just covered that half a dozen times in this examination, on both sides. He testified very definitely that that side should have been lined and he considered it a definite essential in construction and in maintenance. I don't know what more you want out of it.

Mr. Lytle: Yes, I am probably carrying coals to Newcastle.

The Court: After all, I listened to the testimony; I know [331] what is in the record. There is no use covering it three or four times.

Mr. Lytle: That is all.

(Testimony of Allen C. Merritt.)

Recross-Examination

By Mr. Veeder:

Q. You stated that you were able to reach into this stratum of porous material. Isn't that indicative that it would not retain water for any great length of time? Wouldn't the water run out of there very rapidly and the water subside in the canal?

A. Well, it might also indicate that it might run in the opposite direction into the stratum. It is open and may be a water course, for all we could tell.

Q. Would it proceed uphill in the stratum?

A. Not on a gravity flow, it wouldn't flow uphill.

Q. The capillarity of it is very low, is it not?

A. I wouldn't say that, no, sir.

Q. Once again I ask you how the water would proceed from that stratum in the upper bank of the canal disclosed in 80, Exhibit 80, Plaintiffs' Exhibit 80, and get into the porous stratum below the canal?

The Court: Well, I am going to stop that, too. That subject has been covered about half a dozen times. I know all that he is going to say about it, and I think you do, so let's stop that. [332]

Q. (By Mr. Veeder): At what time did you observe live water in the wash created by the break in the canal?

A. I did not testify that I observed that at all.

Q. Then in what gulch was that?

(Testimony of Allen C. Merritt.)

A. It was in the gulch to the north—two gulches to the north, in which live water existed.

Q. How far above the place where the break occurred—

A. I beg your pardon, the gulch downstream—It is shown in Exhibit No. 70—that gulch there; and in No. 75 there is a draw there that there is some live water in.

Q. How far from the break?

A. Well, on the axis of the canal I would not be able to say. I suppose three or four thousand feet around the meanderings of the canal, but in a direct line perhaps 1200 feet or such a matter.

Q. Well down below the break?

A. Downstream, down the canal, some distance.

Q. That is correct? A. Yes, sir.

Q. That would not arise, that is not directly below the pervious stratum to which you referred and in which you ran your arm?

A. Oh, no, not—East of it? No, that flowing water, that is in those canyons north of the break.

Q. A wholly different area from the break?

A. No, except that I would say the geographical symptoms are similar.

Q. But well downstream?

A. Oh, yes, down some distance.

Q. Have you observed the crops in the field immediately below the break?

A. Right immediately below the break we made the measurements indicated in No. 82.

Q. Was there live water in that area?

(Testimony of Allen C. Merritt.)

A. Not at the time we made the pictures, no.

Q. Is there live water there now?

A. Not that I know of.

Q. Is that area seeped now?

A. I didn't see any evidence of running water, excepting the sand shown in the stratum in 69, anywhere along the sides of it and at the head of it, it is quite moist at the present time.

Q. There is no seep in the field, however, at the present time? A. No, sir.

Q. Would you describe the condition of the ground at the present time immediately below the break?

A. Well, I stopped there on my way back to Boise Friday and looked at it and it still seems to indicate that there is an excess of moisture there, so far as vegetation is concerned. [334]

Q. Is the land dry at the present time?

A. No, sir, not exactly dry, it is not.

Q. Not exactly dry? A. No, sir.

Q. What is the stratum immediately below the topsoil in the field described here in your Exhibit 82?

A. Oh, it varies somewhat. It is indicated in 69 as a series of thin calcareous deposits on the sand and on the soft sandstone.

Q. That is a lime formation?

A. Yes. This white here I think indicates it very closely.

Q. That is the layer immediately beneath the topsoil?

(Testimony of Allen C. Merritt.)

A. Well, it isn't a continuous layer. It is in narrow, very thin bands in the formation.

Q. What is the porosity of that?

A. Well, I would not be able to say exactly, but it looks as if the wash, when it cut down through the formation, seeped at some points on that, and in other cases it went through it. As indicated in 69, at this point (indicating) it went below it. It appears that the stratum immediately under it is nearly all sand, partly stone or rock.

Q. There is a lime there, or calcareous—

A. Oh, scattering spots throughout.

Q. That would tend to hold any moisture entering the topsoil, retain it in the topsoil, would it not? [335]

A. Well, I don't think the conditions there indicate that.

Q. In the field, now, to which we refer?

A. I don't think the indications are that that was the case. That is not entirely impervious, because it is spotted and open in spots. The wash has cut through it at points. If I might explain it a little further, it is clearly indicated in 77 in the center, where the prospector's pick is sticking in the bank; also in 73.

Q. Those are areas on the canal bank, though, are they not?

A. Yes, sir, but it indicates that calcareous formation.

Q. What about the calcareous formation in the field?

(Testimony of Allen C. Merritt.)

A. Well, it is broken up. It is not continuous by any means.

Q. Is there a crop on that land immediately below the break, as appears in your Exhibit 82?

A. Well, I wouldn't call it a crop, no, sir.

Q. What would you call it?

A. Why, I would just say it was weeds and wasteland.

Q. Is there any clover growing there?

A. Oh, here and there, a little bunch; nothing that could be called a crop. A few little spots.

Q. What is the condition of the land right there?

A. Well, it hasn't been tilled for some time.

Mr. Veeder: I have no further questions. [336]

Further Redirect Examination

By Mr. Lytle:

Q. You stated that you saw live water in places north or downstream from the break. Did you examine north of the break to ascertain if there was any live water—or south of the break?

A. Yes, sir, I did.

Q. And about how far distant from the break was that?

A. Oh, possibly a third of a mile or such a matter; maybe it was half a mile.

The Court: Well, as a matter of fact, isn't there some live water in the field right next above this field that is shown in 82? A. Yes, sir.

The Court: Where does that come from?

A. Well, I couldn't tell. It is a spring and evidently comes from the formation.

(Testimony of Allen C. Merritt.)

The Court: Do you think that has anything to do with this situation?

A. Well, there is a possibility.

The Court: What is your opinion as to where that water comes from?

A. My opinion is that it comes out of that same porous stratum that the canal cuts.

The Court: Do you think if the inner bank was lined that [337] that water would stop, too?

A. I would say that would be my judgment, that it should be done there.

The Court: All right, go ahead.

Q. (By Mr. Lytle): That lime-like material that you observed, what is the thickness of that?

A. Oh, it is very thin. It is just in little spots throughout the other formation and is as thin as a sheet of paper and sometimes it would be maybe—I didn't see anything more than a half-inch of it.

Q. Is that solid or broken?

A. Oh, it is broken up, spotty, not continuous.

Mr. Lytle: That is all.

Mr. Veeder: We have no questions, your Honor.

The Court: All right, you are excused.

(Witness excused.)

Mr. P. J. Gallagher: Call Mr. Bouton.

The Court: I didn't interfere with this last witness, but I think you can make faster progress than we have been doing. We have been mulling around with this examination. I think you can move faster now.

JAMES W. BOUTON

was thereupon produced as a witness in behalf of the plaintiffs herein and was examined and testified as follows:

The Clerk: State your name, please.

A. James W. Bouton.

The Clerk: How do you spell the last name?

A. (Spelling) B-o-u-t-o-n.

(Witness was thereupon duly sworn.)

Direct Examination

By Mr. P. J. Gallagher:

Q. What is your age, Mr. Bouton?

A. Seventy-one.

Q. What is your business or profession?

A. Civil engineer.

Q. And where do you live? A. Boise.

Q. Boise, Idaho? A. Beg your pardon?

Q. Boise, Idaho? A. Boise, Idaho.

Q. And how long have you been practicing your profession? A. I began in 1906.

Q. And has that been more or less continuous ever since?

A. No. I was on a farm and connected with a machinery house for approximately fifteen years during the intervening time. [339]

Q. Generally speaking, what type of engineering work have you been engaged in when you were doing engineering work?

A. Well, I have had various types, mostly hydraulic.

(Testimony of James W. Bouton.)

Q. By hydraulic you mean having to do with irrigation, drainage, and other water resource work?

A. That is right.

Q. Will you give us the years, approximately, and the extent of time that you were engaged doing hydraulic engineering?

A. Could I refer to a list that I have here?

Q. Yes, if you wish.

A. From November 1st, 1908, to February, 1911, I was employed as an engineer for the Twin Falls North Side Land and Water Company. February, 1911, to 1913 I was an engineer, office engineer, for the Twin Falls-Salmon River Land and Water Company; and in Nineteen—There is a time, then, from about August, 1913, I went back to the Oregon Short Line on a survey of their railroad. Then I went on a farm and was in farming operation until 1924, and I left the farm and I was connected with machinery sales until 1932. Then from 1932 to 1936 I was engaged as an engineer in the investigation and design of structures and canals for the irrigation of the proposed Bruno Project, involving an earth-filled dam, earth and rock, 550 feet high, in the Snake River Canyon near Bliss, Idaho. At that time we ran out and computed 125 miles of irrigation canals, until 1936. Then from 1936 to—No, 1939, I was [340] employed by the Federal Government on emergency flood control on the Boise River. Then from August, 1939, to December, 1939, I was employed as an engineer by the U.S. Geologi-

(Testimony of James W. Bouton.)

cal Survey, Water Resources Division, to make a survey of their underground flow of water up in Northern Idaho, Bonner's Ferry. In 1940 I associated with Raymond J. Briggs and have been associated with him ever since.

Q. Raymond J. Briggs is an engineer, the head of a group of associates, in Boise?

A. That is right.

Q. And since that time have you done any hydraulic engineering or designing and, if so, on what project?

A. Yes. I took the examination before then for an engineer's license in the State of Idaho and also obtained a civil engineer's license in the State of Oregon by reciprocity.

Q. What I wanted to know was, since you have been with Mr. Briggs' outfit have you continued to do consulting and designing work for irrigation projects?

A. Yes.

Q. And what project particularly?

A. Well, I designed and reconstructed the water works system at Challis. I supervised the water works system of Fairfield, Idaho—Challis is in Idaho. I made an investigation and computed the cost of revising the water system at Shoshone, Idaho. I designed the construction of the sewer treatment [341] plant for the village of Mountain Home. I designed and constructed an extension sewer for the City of Buhl, Idaho. Am at present investigating the possibilities and the cost of a

(Testimony of James W. Bouton.)

dual water system for Buhl, Idaho. I made an investigation for the Emmett Irrigation District for the enlargement of their main canal system and the removal of approximately 500,000 cubic yards of earth which was sliding down into their canals, interfering with the flow of water.

The plans and specifications for these projects, where necessary, have been approved by the Reclamation Department of the State of Idaho.

Q. Let me ask you if you have done any work for the King Hill Irrigation District?

A. I have been connected as consulting engineer for the King Hill Irrigation District since 1942.

Q. Now, in covering that period of time, Mr. Bouton, have you supervised or have you been interested in the construction of canals of comparable size to the canal involved in this controversy?

A. Well, most of my supervision and construction work has been done for the King Hill Irrigation District, where we have had to make changes regarding conditions that existed and are at the present time existing in the King Hill Irrigation system.

Q. So the Court may get some idea of the King Hill project [342] as compared in size to this one, let me ask you if the canals there have any relation in size to the North Canal you found on the Owyhee Project?

A. The main canal itself, similar.

(Testimony of James W. Bouton.)

Q. And what is the nature of the problems that you have to meet in the King Hill Project?

A. Similar to that condition that exists right there.

Q. Did the King Hill people have a lot of leakage in their project for some time?

A. They have had a lot and do have at the present time.

Q. King Hill is on the Snake River and immediately above Mountain Home?

A. Yes, above Glenn's Ferry.

Q. I meant Glenn's Ferry. And do the ditches and the canals in the King Hill Project traverse territory very similar to that which you encountered here on the North Canal of the Owyhee Project?

A. Well, there is a similarity there, yes.

Mr. P. J. Gallagher: Now, I have gone into his qualifications and am going into another line of examination, your Honor. It is a little after twelve.

The Court: Yes. Well, I will permit you to stop now, but I suggest that you take advantage of the noon hour and organize this examination so it will not drag.

Mr. Gallagher: Yes, I will do that. [343]

The Court: We will recess until half-past one.

(Whereupon, at 12:00 o'clock P. M., Monday, June 14, 1948, a recess was had until 1:30 o'clock P. M.)

Afternoon Session—1:30 P. M.

JAMES W. BOUTON

thereupon resumed the stand as a witness in behalf of the plaintiffs herein and was examined and testified further as follows:

Direct Examination

(Resumed)

By Mr. P. J. Gallagher:

Q. Mr. Bouton, when you left the stand just prior to the noon adjournment we were talking about your qualifications as an engineer. I want to ask you one further question on that point. In your experience in designing and construction, designing or construction, of irrigation systems, have you run into structures similar to the construction here under construction? A. Similar to it, yes.

Q. Now, you have visited this area where the break took place in the Owyhee Canal?

A. Yes.

Q. Were you there on each of the two occasions with Mr. Merritt, or were you there at different times?

A. I was over there twice or three times with Mr. Merritt. [344]

Q. And was that before the water was turned into the canal?

A. Twice before the water was turned into the canal.

Q. Twice; and once afterwards? A. Yes.

(Testimony of James W. Bouton.)

Q. Now, Mr. Merritt has testified as to these exhibits that are now put upon the board, the photographs. Were you there with him at the time the photographs were taken?

A. I was not with him. I was there the day he took the photographs, but I was not with him when he was taking the photographs.

Q. I see. You were doing something else yourself?
A. Yes.

Q. Do these photographs, in your opinion, represent about the conditions you found there when you made your examination?

A. So far as my examination was concerned, they do.

Q. Did you pay any particular attention to the formations found in the photographs, shown by Exhibit No. 73, for instance?

A. Seventy-three—Is that—

Q. That is down here, back of the Reporter.

A. Yes; I came down the canal at the time Mr. Bronken was standing there with the rod.

Q. Did you make any personal examination of the stratum that is shown there near where Mr. Bronken is?

A. Yes, in that it is a very porous formation.

Q. You never saw the ditch before the break?

A. Never did.

Q. And you did not see the ditch before they put in this sealing on the downstream side?

A. I did not.

(Testimony of James W. Bouton.)

Q. How long is the structure that we call the porous structure and which is shown in Exhibit No. 73—That is, up and down the ditch?

Mr. Veeder: I object, your Honor. There is no foundation that he made any measurements or any compilations.

The Court: He can answer if he knows whether he has observed.

A. It is approximately 200 feet, I would think.

Q. (By Mr. P. J. Gallagher): Did you give that distance and the area exposed there some consideration, when you made your examinations, in determining its extent and length?

A. No, we didn't measure it very closely, the exact distance, but that porous part was the length——

Q. That is your judgment now, about 200 feet?

A. About 200 feet.

Q. Could you determine whether or not the porous structure on the upstream side of the bank—We will call it the mountain side—whether that extended downstream or north of where the break took place?

A. It does.

Q. And could you estimate the distance that it extended? [346]

A. I would say at least 75 or 80 feet.

Q. What have you to say as to whether or not that whole stretch or length of stratum which you estimate to be 200 feet, whether or not that bank is porous for that distance?

A. I didn't get your question.

(Testimony of James W. Bouton.)

Q. Well, maybe I can shorten it up. Is the bank porous for the full distance that you estimate to be 200 feet north and south there?

A. No, I don't know as it is porous for the full length of it. There's certain conditions there that you can see in the picture that prevented us from getting a view of the bottom of the canal. The material above there has sloughed down and covered up a certain amount of the bank and it is impossible to get above the bottom of that canal over to the porous material unless that was excavated and cleaned out.

Q. I see. Well, could you see enough of the upper side of the canal to say whether or not it was porous out at at least both ends and certain spots in the middle?

A. It was porous at both ends—That is, it is porous beyond both sides of the break.

Q. That is what I mean. Now, did you examine the area below the break in the canal that is shown in Exhibit No. 82, as to whether or not any indication of seepage was visible?

A. You mean at the end of this point right over here (indicating)? [347]

Q. Yes. 82 is this little white paper exhibit over here (indicating).

A. Down here (indicating)?

Q. No, below. The other one, below.

A. Oh, this part here (indicating)?

Q. Yes.

(Testimony of James W. Bouton.)

A. There was no indication of seepage when I was out there.

Q. What have you to say——

A. That is, on this land that I examined.

Q. I see. What was its general condition as to whether or not there had been seepage there, if you could tell?

A. Practically everything appeared to be dead up towards the canal.

Q. That exhibit indicates that that is about 4.3 acres. Would you say from your own observation that that area is about correct as to size?

A. I think so.

Q. Now, was there any living water out there in 1948, when you examined it, seeping or running streams?

A. There was a small amount of water in the bottom of that coulee just north of the canal. The first time I was out there you could see that water, driving along the bank of the canal. I mentioned that to the people that we were with, that there was water in that coulee, in the bottom of that coulee, the first time that we were out there. [348]

Q. Now, later on did you observe water running at any other place adjacent to where the break was?

A. Last Friday, south of the break, and I don't know just how far, but there's about five—I would say approximately five inches of water coming out down below the canal, evidence of some sort of a spring.

(Testimony of James W. Bouton.)

Q. When you say five inches do you mean five miner's inches?

A. Five miner's inches, or about one-fifth—one-tenth of a second-foot.

Q. Was that running into a stream?

A. Yes, my opinion is that it runs into a point down below.

Q. Now, did you make any examination of that mountain side of the bank there so as to form an opinion as to whether or not it would absorb in a reservoir any considerable amount of water over an irrigation season?

A. It will absorb it, be enough water back there, providing there is a storage reservoir back in the hills to hold it.

Q. Now, there has been a lot of testimony in this case as to dips and rakes. Would that have anything to do, in your opinion, with the amount of reservoir capacity that there would be in the north bank—I don't mean the north bank; I mean the west bank of the canal?

A. No, I couldn't form any opinion as to the amount of water that would be stored back there. Not being a geologist or not knowing anything about geological conditions, I couldn't [349] state the amount of water that would be there.

Q. Calling your attention now to Exhibit No. 80, Mr. Bouton, which purports to be a drawing of a pervious area, were you present with your associates at the time the investigation was made on

(Testimony of James W. Bouton.)

which that drawing was based? That is the white exhibit over on this end, on the top.

A. I was not with them at the time they took those levels down there.

Q. You were not with them?

A. No, I was not with them at the time they took those levels.

Q. In your experience as an engineer, and particularly such experience as you have had in designing projects, would it be good engineering or sound and safe construction, in a hillside such as the North Canal, to build the lower side of a canal over a pervious structure without a core wall which would tend to cut off the seepage from the head ditch?

Mr. Hess: Just a minute. We object to that as incompetent, irrelevant and immaterial, the witness not showing himself as qualified, and there is no evidence shown in the record that there has been a core wall built.

The Court: I will overrule that and say that there is a core wall built.

Mr. Hess: I thought the witness, personally, was talking about a core wall that was made at the time of the break, and there is a difference between a core wall and a core lock. [350]

The Court: He said that there was no evidence of any core of any kind in there, and, in any event, I think it furnishes a sufficient basis for asking the question. If it be proved the contrary, then you

(Testimony of James W. Bouton.)

can ask him something else. There is a basis in the record.

Mr. P. J. Gallagher: Can you remember the question?

A. No, I don't remember the question.

Mr. P. J. Gallagher: Will you read it, please.

The Court: Read it.

(Pending question read.)

A. It would not be good engineering practice to build a canal through a pervious piece of earth without some consideration to the fact that it was pervious, and some sort of preventative should have been put in that canal at that time, either a core wall or lining the entire canal, bottom and both sides.

Q. Assuming that there was no core wall there and the ditch was not lined on either side prior to the break, would you say, under the conditions that you found, that that was good construction?

Mr. Veeder: I object, your Honor. There is no evidence that the canal was not lined prior to the break. His assumption is premised on that.

The Court: Well, it it was lined and he says it should not have been built without being lined and you prove that it was lined, then you have proved that one of those precautions [351] had been taken. He may answer.

Mr. P. J. Gallagher: He may have to read that again.

(Testimony of James W. Bouton.)

The Court: Read the question.

Pending question read.)

A. No, it was not.

Q. (By Mr. P. J. Gallagher): From the observations you made there, Mr. Bouton, was there any indication at all that the mountain side of that canal was ever lined at that point?

A. I haven't found any.

Q. While we are on that subject of lining, did you ascertain whether or not there has been lining at other portions of the ditch?

A. Yes, there are a few other places that I observed in about seven or eight miles that I traveled over the canal.

Q. Where are they located with reference to where the break took place?

A. One of them, I think, was in the neighborhood of about 4,000 feet on the center line of the canal below this break.

Q. And where is the other one?

A. Beg your pardon?

Q. And where is the other one in relation to the break?

A. The other one is south of the break. I don't remember now just where it was.

Q. Just so we can locate the one you say is downstream from the break, I will ask you to take a look at Exhibit No. 70 and [352] say whether or not that lining in the canal is on an area of ground shown in 70?

(Testimony of James W. Bouton.)

A. Well, I couldn't say, not knowing the picture, I couldn't tell just where it is.

Q. Very well. A. On this picture here.

Q. Yes.

A. This is the channel where that water is (indicating)?

Q. Yes.

A. Well, I think it is around this point right in here.

Q. And what kind of lining do they have there?

A. Concrete lining.

Q. And could all this area where the break took place be lined with any other material other than concrete in a manner to prevent leakage?

A. We do that sometimes, take an earth impervious material and enlarge the canal sufficiently to put this lining in and probably tamped wet or dampened.

Q. Have you examined the lining on the downstream side of the bank at the point where the break occurred in its present condition?

A. Only by observation. I didn't make any examination through the bank.

Q. Yes, I know; but could this same type of lining be placed on the up or mountain side of the canal? [353]

A. By removing a certain amount of earth there it could.

Q. That is, you mean by grading back the bank there so you can get a proper slope to your lining?

A. That is right.

Q. Would that be an expensive thing to line that

(Testimony of James W. Bouton.)

canal for that short space? What I mean by that, comparatively expensive?

A. No, I don't believe it would be very expensive for the size of the project. When you take into consideration the size of the project and the amount of money spent on that, I think it would be a reasonable cost.

Q. What have you to say as to whether or not it would save a large amount of water?

A. Well,—

Mr. Veeder: I object to that, your Honor. That is an irrelevant question. That matter of saving water is not at all involved in this case.

Mr. P. J. Gallagher: Maybe that is true.

The Court: I may say, in that regard, that, although it is stated in one of the contentions, I think that probably the cost is irrelevant, too.

Mr. Veeder: The cost, your Honor?

The Court: Yes.

Mr. Veeder: It is my understanding, your Honor, that in the State of Oregon one of the important factors in a question [354] of negligence in the construction of a canal is the very question of expense, one of the elements.

The Court: You are not dealing with the State of Oregon. You are dealing with the question of whether the Government of the United States is negligent under these circumstances. But I think the question—I say it is a preliminary consideration, and I think the question of cost is immaterial. I am not ruling on it at the present time. So if it

(Testimony of James W. Bouton.)

is irrelevant, why, I think maybe the cost of it is irrelevant. So you may take the evidence on it if you want to.

Q. (By Mr. P. J. Gallagher): What have you to say about whether or not that type of lining through there would amount to conserving the water in the canal?

A. Well, it would have an effect. Any time you lose water through seepage, why, you are going to take that same amount of water away from the farmers down below.

Q. I am going to ask you a hypothetical question,—and it is the same question, your Honor, that we submitted to Mr. Merritt, with just a change in the names.

Mr. Bouton, assuming that the North Canal of the Owyhee Irrigation Project was built in 1934 in the manner and through the type of soil which you observed and found on your examination of the canal in 1948 and regarding which you have testified in this hearing, and assuming that in the year 1945 wet spots developed in the soil in an area immediately adjacent [355] to the lower bank of said canal to such an extent that it was difficult to cultivate or plow such spots because of the water in the soil, and that when the crops in said area were cut the water would rise in the mower or horse tracks, and that tractors could not be used in said harvesting operation because of the wet condition of the soil, and assuming that this condition existed over an area of approximately one and one-half

(Testimony of James W. Bouton.)

acres at different spots adjacent to said canal; and assuming that a water seepage developed in an area of some 200 to 250 yards south and east of a spot later to be described as a break in the canal and that such seep has increased materially to where it now runs in a perceptible stream or flow; and assuming that on July 14, 1946, the canal was carrying approximately 450 second-feet of water, and that on that date a large segment of the lower bank of said canal broke away and was washed away below the normal bottom of said canal; and further assuming that in the construction of that part of the canal where the break occurred no core wall was constructed in the lower bank of that canal—Assuming all the matters suggested to you in this question, and taking into consideration the type of soil you found in the side and bottom of the canal at the time of your examination in 1948, and regarding which you have testified, have you formed an opinion as to what caused the ditch to break in July, 1946? The question is, have you an opinion? [356]

Mr. Hess: Are you through?

Mr. P. J. Gallagher: Yes.

Mr. Hess: We renew the objection made, your Honor, to the question when propounded to Mr. Allen C. Merritt. We renew that objection.

The Court: The objection, on the same ground, is overruled.

Q. (By Mr. P. J. Gallagher): Have you an opinion, Mr. Bouton?

(Testimony of James W. Bouton.)

A. Well, my opinion would be——

Q. Well, just say Yes or No first; then you can give your opinion.

A. Just to what is your question directed; then I can answer it Yes or No.

Q. Well, the question is whether or not you have formed an opinion, based on the facts I read to you in the question? A. Yes, I have.

Q. All right, you may give your opinion as to what caused that break.

Mr. Hess: Now, if you Honor please, we renew our objections as made to the hypothetical question when propounded to Mr. Allen C. Merritt.

The Court: Same ruling: Objection overruled.

A. Thoroughly saturating that bank below through that pervious material caused the bank to give way. There was nothing there to stabilize it. Naturally, when it became thoroughly saturated [357] something had to give and the bank went out.

Mr. P. J. Gallagher: Having given your opinion as to the cause of the break, and taking into consideration all the facts that I have asked you to assume in the hypothetical question and also all the conditions you found on your examination in March, April and May, or at such times as you visited the break, in 1948, and to which you have testified, have you an opinion as to how the break which occurred in July, 1946, could have been avoided?

Mr. Hess: Now, if your Honor please, we renew our objection in the same language and manner as

(Testimony of James W. Bouton.)

was made to that hypothetical question submitted to Mr. Allen C. Merritt.

The Court: The objection as renewed is overruled.

A. Is that the first or second break?

Q. (By Mr. P. J. Gallagher): I am speaking of the first break, Mr. Bouton.

A. I thought I answered that question before.

Q. Well, you did, and you answered a series of questions that might indicate what your opinion was, but I am asking you now if you have an opinion as to how the break could have been avoided?

A. After the canal was constructed?

Q. No.

A. Or during the construction work?

Q. During the construction,—How could the canal have been [358] built so that the break could have been avoided?

A. They could have put in the same core wall that they put in there after the break occurred, if that core wall was down far enough below the pervious material, or it could have been lined.

Q. Either method, in your judgment, would have prevented the break?

A. Either would have prevented the break, I think.

Q. Now, Mr. Bouton, assuming that the core wall was not put in in the construction period, and after seepage began to be evident on the ground, could the ditch still have been repaired so as to have avoided the probability of a break?

(Testimony of James W. Bouton.)

A. Yes.

Mr. Hess: We object to that. We make the same objection to that, amounts to——

The Court: Same ruling.

A. It could have been prevented.

Q. (By Mr. P. J. Gallagher): It could have?

A. Yes.

Q. By what method? A. By lining it.

Q. The same type of lining you have described heretofore? A. Yes, sir.

Q. One other question: It is apparent, or it has been testified to, Mr. Bouton, that after the first break occurred a [359] core wall was built in the bottom of the ditch over an area or distance of between sixty and a hundred feet, and that then the bank was built up from the bottom of the ditch for a height of from four and a half to six feet, and the water was then turned into the ditch and water ran over the top of the ditch and later, at a point ten to twelve feet downstream from the end of the core wall, another break occurred. Now, taking into consideration the conditions that you found which indicated whether or not there was seepage along the bank of the canal, I will ask you if you have an opinion as to what may have caused the second break in the bank of the ditch?

Mr. Hess: We renew our objection to this hypothetical question in the same form and manner as made to the hypothetical question propounded to Allen C. Merritt.

(Testimony of James W. Bouton.)

The Court: The objection as renewed is overruled.

A. That would depend entirely on whether they built that core wall beyond any chance of seepage getting through the new embankment and the old embankment at the time—at the place where they built the core wall—or beyond where they built the core wall.

Q. (By Mr. P. J. Gallagher): Well, my question assumed as a fact that the core wall was not built at the place where the second break took place. Now, will that help you in forming an opinion?

Mr. Hess: We renew our objection, your Honor. [360]

The Court: Same ruling.

A. I think the same condition existed there that existed in the other point, that would be my opinion, and that the core wall was not carried far enough down the stream to prevent another break.

Q. (By Mr. P. J. Gallagher): In your opinion,—Or is it your opinion that if the core wall was extended far enough north to intersect and cut off all of the seepage area from the upper bank, would that have tended to prevent the second break?

Mr. Hess: We renew our objection, your Honor, in the same manner as propounded to Allen C. Merritt in the question.

The Court: I will sustain an objection to this question because I don't know what it means. If you have some other point in mind, why, you can go ahead. I don't mean to stop you from that.

(Testimony of James W. Bouton.)

Q. (By Mr. P. J. Gallagher): As I understand your testimony, the area that was susceptible of absorbing water, or the stratum that you say was pervious and is shown on the upstream side of the bank, was 200 to 250 feet long?

A. I think my statement was approximately 200 feet long.

Q. Two hundred feet long; and extended for a distance of 50 to 75 feet north of where the first break took place?

A. I think that was my answer.

Q. In your opinion, would the same saturated condition exist [361] in the bed of the ditch and in the lower soil as a result of the seep through the north bank—west bank at a point where the second break took place?

Mr. Hess: We object to that, your Honor, as incompetent, irrelevant and immaterial, the witness not having shown himself to be qualified. He states that he does not understand the geological conditions that exist there for storage,—and based upon guess and speculation.

The Court: Well, that is overruled.

A. The area north of the break, as surveyed by Mr. Bronken, shows that the seepage area did extend out some distance north of the break. Naturally, there must have been some porous material in the bank that would allow that water to seep through north of the first break, and in my opinion that would cause the second break.

Q. (By Mr. P. J. Gallagher): Now, another

(Testimony of James W. Bouton.)

line of interrogation: The record in this case shows that after the first break occurred the bank was built up on top of the core wall, oh, to a height of four and a half—between four and a half and six feet; and the record further shows that with the bank built that high water was turned into the ditch to a depth sufficient to overflow the new embankment and that continued for some hours. Would you say that that was good management and maintenance or good engineering, to have turned that much water into a fresh canal, freshly built canal, without provisions [362] for its continuing on down in the canal and to avoid running over the bank?

Mr. Hess: We object to this, your Honor, as not showing all the conditions that existed there at that time, the conditions and the water, in the way that it was maintained and dammed off above the canal.

The Court: Overruled.

A. Well, I would not consider it good maintenance to turn the water down there that would be sufficient to run water over the top of the bank at any time.

Mr. P. J. Gallagher: I think we are about through, your Honor. May I confer with counsel just a second? That will be all. You may cross-examine.

Cross-Examination

By Mr. Veeder:

Q. Would you state the difference between cut and fill, so far as the construction of canals is concerned?

(Testimony of James W. Bouton.)

A. Well, a cut could be either on a sidehill, where you only cut out part of the canal, and the fill would be on the lower side of it where you made the other bank; or a cut could be through a certain piece of ground where you cut out the entire amount and wasted the amount of material that you cut out.

Q. It would be possible to have a canal that was cut right into the face of a hill, so that all of the water was carried within natural ground in place, is that not correct? [363]

A. It could be possible, yes.

Q. Is that not a frequent practice?

A. No; a frequent practice, usually, from an economic standpoint, is to average up the cut and the fill. In other words, you cut the amount out of the bank that you want to put into the fill.

Q. But if you were seeking security in construction wouldn't you make the canal all cut?

A. I didn't quite understand that question.

Q. If you were seeking to make the canal secure, safe, isn't it the better practice to leave the dirt in place?

A. No, not if you properly construct the outside bank it isn't.

Q. But isn't it extremely expensive when you start making core bank and fill the full length of a canal? Is that not——

A. Well, that would depend entirely on the size of the canal and the——

Q. Assuming the size of canal as here?

(Testimony of James W. Bouton.)

A. Well, I wouldn't consider it necessary to make a core wall along the entire bank of a canal. There are numerous canals in the State of Idaho, and also in the State of Oregon I presume, that it was not necessary to make a core wall. They just simply put the bank in there and probably wet it and rolled it so as to make the bank so it would be stabilized.

Q. It is a matter of engineering discretion when you are [364] constructing, isn't it?

A. That is right.

Q. You view the terrain and the character of the soil and the structure through which you are going and you make your determination as an engineer as to whether you build a core bank,—

A. That is correct.

Q. —whether you build a canal through natural ground; is that not correct? It is a discretionary matter? A. Yes.

Q. You say the factors, the conditions of construction, are usually left up to the locating engineer, who observes the status of the ground through which he is proceeding and he decides whether it should be a cut in the bank?

A. Well, that is decided on the safety and also the economic conditions.

Q. Yes, the engineer must make that determination? A. That is right.

Q. He may put some core bank and some natural bank, is that not correct? A. That is right.

Q. If he decided to silt the canal, why, he might

(Testimony of James W. Bouton.)

use a different method than in another instance, isn't that correct? A. That is right.

Q. Wholly discretionary, isn't it? [365]

A. What is it?

Q. It is a discretionary function?

A. Surely.

Q. In earth canals is it not customary, is it not a common phenomena for earthen canals to leak, to seep?

A. I think all earthen canals have a certain amount of water absorbed. In other words, there are certain losses in all earth canals, a small amount of earth loss, some——

Q. Of water losses?

A. Yes, water losses. Some are greater in one canal than in others. That depends upon the porosity of the soil which the canal is running through.

Q. The presence of seepage in itself does not disclose a dangerous weakness in the canal, does it?

A. That would depend entirely on the amount of seepage that was encountered there.

Q. And the corrective measures—That is, I presume in the canals that you have managed where there was seepage you determined what corrective measures were necessary to rectify a seep area, is that not correct?

A. Yes as a rule, we measure our canals to determine where the seepage losses are.

Q. And it is a matter of discretion, then, engineering discretion, as to what method and practice you would use to correct that seepage? [366]

A. Usually.

(Testimony of James W. Bouton.)

Q. And by observation of the seep area you would determine what in your mind would be the proper discretionary act to take to rectify it?

A. I would consider that good engineering practice.

Q. The appearance of seep in a particular area on a canal is not necessarily indicative that the water causing that seep arises from an area of the canal immediately adjacent?

A. I don't know as I quite understand your question.

Q. In other words, is it not possible for the seep to proceed down the canal quite a distance before coming to the surface?

A. No; it could do it; it could do it. It would depend entirely on where the least resistance to the water was whether it would follow the canal down or whether it came out immediately.

Q. It might arise a quarter or half a mile away, though, from where the actual seep occurred?

A. Well, that is possible, but it is hardly possible in this territory here.

Q. In determining whether to line a canal in the first instance, you weigh much the same factors, do you not, as you do in determining whether you put in a core in a canal bank?

A. That would depend entirely on whether just a core in the bank on the downhill side of the hill would be sufficient or [367] whether there's other conditions there in the bottom or the uphill side, as to whether a core would be sufficient to take

(Testimony of James W. Bouton.)

care of the conditions or whether it would be necessary to line it.

Q. It is a matter of determination based on existing factors? A. Yes.

Q. And the engineer having made that decision after investigating those factors?

A. That is right.

Q. You referred to live water in a coulee north of the break. would you locate that?

A. I beg your pardon?

Q. Where was the coulee to which you referred——

A. This coulee right here, down here (indicating).

Q. That appears on Plaintiffs' Exhibit No. 70?

A. That is right.

Q. And where is that located with respect to the break?

A. Well, I don't remember the exact distance, but it is north, it is really the first coulee north of the break, as I remember it.

Q. You couldn't state in number of yards or feet from that? A. Not very definitely, no.

Q. It is some distance, though, is it not?

A. Oh, it is probably—down to the head of it I imagine would be probably a thousand feet. [368]

Q. About a thousand feet. And would you state the time in which that live water appeared?

A. Along in March, between the 1st and the 10th of March, 1948.

Q. Was there water in the canal at that time?

(Testimony of James W. Bouton.)

A. No, there was not.

Q. Did you observe any conduits under the canal near the head of that gulch?

A. No, I didn't go down to see whether there was a conduit there or not.

Q. That live water might possibly have come down from that heading?

A. No, it couldn't come down from above the canal and through that conduit.

Q. Is there not a whole area back in that back country there that is inclined towards the river?

A. That is right.

Q. And isn't it the situation that the subterranean—that the ground water proceeds toward that area?

A. I imagine, from my observation of all that growth down below the canal, with no growth above the canal, that that would be evidence that the water is coming in below the canal.

Q. Would you state the thickness of the core stratum in the upper bank of the canal?

A. I beg your pardon? [369]

Q. Would you state the thickness of the core stratum in the upper bank of the canal?

A. The thickness—Do you mean the vertical thickness or the horizontal thickness?

Q. The vertical thickness.

A. Well, we didn't dig down, excavate any material there, to find out what the thickness was below this material that was thrown down and

(Testimony of James W. Bouton.)

covered it up, but I imagine it was right in the neighborhood of about—I imagine it averaged from around six inches to three or three and a half feet deep.

Q. There is a considerable variance, in other words, in the stratum?

A. A considerable variance.

Q. In the thickness?

A. That is right. That is, so far as my observation was. As I say, we didn't excavate any there to find out just what the conditions were.

Mr. Veeder: No further questions.

Redirect Examination

By Mr. P. J. Gallagher:

Q. Mr. Bouton, counsel asked you about whether or not it would be discretionary with an engineer as to whether or not a canal should be lined. What is the purpose of lining a canal, anyhow?

A. There are two purposes. One is to protect, or, in other [370] words, to conserve, water, to carry that water on down to the delivery point to the farmers, or to the point of use, whatever it is for. The other is a safety measure, taking into consideration that there is a hazardous condition in the canal that might be washed out. We line it to take care of that hazardous condition.

Q. And when you say, or answered on cross examination, that that might be discretionary, did you take into consideration the purpose of lining

(Testimony of James W. Bouton.)

on the element of safety? In other words, did you mean to say that an engineer could use his discretion whether he would build a safe canal or an unsafe canal?

A. Well, that would depend on whether an engineer is competent to use discretion, too.

Q. I see. And the necessity or feasibility of lining, any type of lining, would depend somewhat on the strata that you are building your ditch through? A. That is right.

Q. Some strata would call for greater care as a matter of safety than other strata?

A. Exactly.

Mr. P. J. Gallagher: I think that is all.

Recross-Examination

By Mr. Veeder:

Q. Do you think that good engineering requires that you [371] employ a construction method that insures against all possible canal breaks?

A. I don't quite get your question.

Mr. Veeder: Would you read the question, please.

The Court: Read it.

(Pending question read.)

A. It should be done. It is not always done, but it should be.

Mr. Veeder: We have no further questions.

(Witness excused.)

Mr. P. J. Gallagher: Your Honor, I think we are about through. If we could have about a five-minute recess we could determine it, with your Honor's permission.

The Court: You mean all through with your testimony?

Mr. P. J. Gallagher: Yes, all through with the witnesses. We have another witness and we are just conferring now as to whether or not we are going to use him at all.

The Court: I will give you a recess, then. Court is in recess.

(Short recess.)

Mr. P. J. Gallagher: Could we call another short witness? Call Mr. Bronken. [372]

PAUL BRONKEN

was thereupon recalled as a witness in behalf of the plaintiffs herein and, having been previously duly sworn, was examined and testified as follows:

Direct Examination

By Mr. P. J. Gallagher:

Q. Mr. Bronken, when you were on the stand the other day you gave us some statements as to your training and qualification as an engineer. I wish, for the purpose of the questions we are about to ask you, you would state what training you have had, from a geological standpoint.

A. From a geological standpoint, I have my Master of Science degree in Geology from the Mon-

(Testimony of Paul Bronken.)

tana School of Mines, and that is a four-year course in which the prominent subjects you study are geological subjects and those pertaining to the earth's surface.

Q. And in the course of your studies did you have any field work? A. Yes, sir.

Q. And since you have been out of school have you done any field work pertaining to geological formations? A. Yes, sir.

Q. Now, how much work did you do on the investigation that you and your associates have carried on on the Owyhee ditch break?

A. The first work we did, we ran levels and made a profile [373] of the canal from the bench mark at the south end of the concrete section up through and past the break. That was done with a level—or, before we did that we actually chained down the center of the canal from Mile Post 36 to establish our station so we could construct a profile; then we ran levels on that outcropping of this pervious formation from the west side of the canal over the top of the east side of the canal and down to the wash, took samples of this same outcropping, and surveyed to establish the extent of the area that was hindered—the cultivation—I mean the vegetation was hindered to the east of the canal.

Q. That is what is shown on Exhibit 82?

A. Eighty-two.

Q. Now, Paul, did you take some samples of the stratum that has been described here as being

(Testimony of Paul Bronken.)

a pervious stratum at different places in your investigation? A. Yes, sir.

Q. At what places did you take samples of that earth? A. Shall I illustrate on the pictures?

Q. Well, just tell us.

A. I took samples of this pervious formation where it crops out from the west bank of the canal, and then down where it crops out at the head of the washout.

Q. And that would be where it shows up in Exhibit No. 73? A. Yes, sir. [374]

Q. And the outcropping where it shows up in Exhibit No. 82—or 79?

A. Eighty-two and 69 in the picture.

Q. What would you call the formation that makes that stratum, what type of rock or earth or sand?

A. I would call it, in geological terms, as fine-grained, uniform grain, sandstone, that has been partly cemented with the calcareous cement, or due from precipitation of ground waters and percolating waters, after which sand has been lain down.

Q. Did you carry on any experiments to see whether or not that was pervious or absorbent of water?

A. The experiments we carried on was the actual immersion of the rocks under water to determine the extent of the porosity of the sandstone.

Q. Do you have some of those samples with you at the present time? A. Yes, sir.

Q. Would it be much trouble to carry out a little experiment in the courtroom here to show how water affects that sandstone formation?

(Testimony of Paul Bronken.)

Mr. P. J. Gallagher: Could we do that?

The Court: Well, I understand at the present time that this matter should have been taken up in the pre-trial order if you were going to do anything like that, so these people [375] would be on notice. If they want to consent to amend the pre-trial order I will let you do it.

Mr. Hess: Well, if your Honor please, we feel that they had plenty of chance to do this with these witnesses, and we don't know the purpose of this, or anything else.

Mr. P. J. Gallagher: All right, I will withdraw that.

The Court: The rule is that with the pre-trial order your exhibits should be displayed, and you should have brought that up if you were going to do it at the trial, and this is production of factual exhibits.

Q. (By Mr. P. J. Gallagher): What is the nature of the experiments that are necessary to determine the porosity of the soil?

A. Well, a true laboratory determination of the porosity of soil would be on weight measure, where you weigh your sample—dry it first, get it completely dry, and weigh it; then pour water on it or put it under water and weigh it afterwards to determine the amount of water it will absorb. That would be the laboratory method. Or from the standpoint of determining whether a rock will absorb water, you can immerse it in water, and all air that is entrained in the water will bubble out, and

(Testimony of Paul Bronken.)

you can see that bubbling of air coming out of the rock that——

Q. What was the method that you employed?

A. We employed the method of putting the sample in water and showing the air bubbles coming out of the rock. [376]

Q. Did the experiments show it to be porous or otherwise?

A. I would say it showed it to be porous.

Q. And do you have any way of measuring this porosity?

A. No exact measurements could be made on that unless you had some very highfalutin apparatus to catch the amount of air that came out of the rock.

Q. How long did your experiment give evidence that the water was displacing air in the rock and the air was bubbling out?

A. A considerable amount.

Q. What would that indicate as to the degree of porosity in the rock?

A. Well, that would indicate to me that it was rather high.

Q. What have you to say, then, as to that type of rock, where it is subjected to a sufficient amount of water, as to its softening and sloughing-off?

A. Well, as your water absorbs or dissipates within the rock it will have a tendency to dissolve the bonding material that holds the sand particles together, and if and when that is dissolved you have nothing but a bunch of sand that has been held to-

(Testimony of Paul Bronken.)

gether by any physical means other than the boundaries of the other earth around the sides.

Q. Paul, did you make enough examination of the stratum to be able to tell the Court how much of that stratum that is shown on Exhibit No. 80, the one that runs down from the ditch there, how much of that stratum is composed of that [377] type of material? A. In vertical distance?

Q. That is right, vertical distance?

A. In the canal I would estimate somewhere around from two to four feet in various places is exposed that has that characteristic, and down in the wash it varies somewhat. In the wash there are calcareous bedding planes. Sometimes the water has gone through there, the wash of the water has gone through there, and below those planes there might be some, but on top of there I would say there would be about two, two and a half to three feet of material exposed.

Q. Did your experiments indicate the capillary capacity of the rock or inclination?

A. Yes, sir.

Q. What have you to say as to whether or not there was capillary action evident?

A. I would say there was capillary action evident, or there is now.

Q. And is that in marked degree, or just——

A. I would say it is in a marked degree.

Q. Are you prepared to give any opinion at all on whether or not that stratum that is exposed in the mountain side of the canal would absorb

(Testimony of Paul Bronken.)

water during the irrigation season that might find its way into subterraneous channels and get out under the canal? [378] A. Yes, sir.

Q. What is your opinion about that, Paul?

A. My opinion is that when the water enters this pervious formation as shown on Exhibit 80 it is on an incline toward the valley. In other words, as water enters there you are going to get a hydrostatic head that will keep pushing the water through the formation, and since you have a source of water there is no reason to believe that in time it won't completely fill until it crops out someplace and comes out on the surface.

Q. In other words, it would follow on down this pervious structure until it found an outcropping where it could get out?

A. Yes, until it found some weakness where it could free itself.

Q. Did you find in that vicinity any spots where the water is coming up at the present time?

A. Yes, sir. The most prominent one is to the south of the break, in a neighboring field there. We observed a flow of water there coming out of the middle of the field. I would imagine it is about, oh, somewhere between a hundred and a hundred and twenty-five feet down the slope from the toe of the canal bank. It just bubbles right out of the ground there.

Q. In your experiments, Paul, did you leave this sandstone in the water to determine how long it had to remain there before it dissolved?

(Testimony of Paul Bronken.)

A. Until it is dissolved, I would——

Q. Until it lost its formation?

A. Until it lost its formation. Yes, we left this sandstone in the water, and right now—We put it in about a month ago, and right now about half of it has been dispersed and is just laying in the bottom of our container as loose sand.

Mr. P. J. Gallagher: That is all.

Mr. Veeder: There are no questions.

(Witness excused.)

Mr. P. J. Gallagher: If the Court please, on the issue that we are now trying, as we understand, we are not to put forward any testimony as to the particular damages, but, limiting the testimony as to what we consider to be the testimony of negligence, that would be all of our testimony, with one exception. I have asked the Government to furnish us with a statement with the respective amounts of land that was Government land and that that was in private ownership at the time the project was built. They tell me they can do that and get it in the form of a document that they can introduce later.

The Court: Is that true? Do you agree to that?

Mr. Hess: Just a minute, your Honor. Is there any [380] reservation in the pre-trial order as to exhibits of anything of that nature?

Mr. P. J. Gallagher: No. That becomes material upon the basis that you set up in your motion to dismiss. For the first time that question was raised,

as to the purpose of building the project, and I think would be material in our argument as against a motion to dismiss to be able to show to the Court the number of acres that were in private ownership as compared to the number of acres that was Government land at that time.

Mr. Hess: Well, if your Honor please, we just don't know what the purpose of this is, and we do not desire them to hold their case open for some further testimony of any kind. We would like to see them close.

Mr. P. J. Gallagher: Well, I think right here in the courtroom we have a number of witnesses that can tell within five acres how much was in private ownership and how much was in Government ownership.

Mr. Hess: Do you want to put on a witness? We have no objection.

Mr. P. J. Gallagher: Well, we would have to call one of your men.

Mr. Hess: Well, we have no objection. Go ahead and call him.

Mr. P. J. Gallagher: Mr. Newell will know. [381]

Mr. Hess: Go ahead and talk with our witness back there.

The Court: Well, we will take a recess and let you interview him.

(Short recess.)

Mr. P. J. Gallagher: If the Court please, at this time counsel for the defendant and counsel for the plaintiffs have agreed upon the question in-

volved as to the acreage in the project and it is agreed that we may stipulate into the record the following statement:

That in the entire project the total acreage is 101,000 acres, and that of such 101,000 acres there is 16,000 acres of public lands and a total of 65,000 acres of new lands. The acreage of new lands will be inclusive of the public lands. Then there are other lands which have been served by supplemental contracts and that they are now selling water to totaling some 13,000 acres. The project as designed was to include 101,000 acres total, and of that 101,000 acres 16,000 is public lands and the balance in private ownership.

Mr. Hess: May I look at that a moment, Counsel?

Mr. P. J. Gallagher: Counsel has called my attention to the exact difference between the old lands and the new lands. That will be shown by the difference between 65,000 and 101,000, or 36,000 acres of old lands in the project, old cultivated lands. [382]

Now, your Honor, going back to my former statement, assuming that we are now trying only the question of negligence, or the duty of the Government to furnish water, that will be all the testimony that we care to offer at this time on that branch of the case.

The Court: The Court will direct—You don't need to do it now—The Court will direct that this stipulation be added to the pre-trial order as part of the agreed facts.

Mr. P. J. Gallagher: Thanks, your Honor.

The Court: Plaintiffs rest.

Mr. Veeder: The Court has before it now a motion to dismiss on the failure-to-deliver-water cases, on the ground that there is no duty owing by the United States to the plaintiffs to provide them with water, and it is our understanding that motion is still being considered by the Court. We wish to make a separate and additional motion, distinct and separate from the one presently before the Court, that upon the grounds of the facts produced by the plaintiffs they have disclosed that the negligence, if any, arose from discretionary acts on the part of the Federal employees who constructed this project, and the North Canal in particular, and therefore exemption from immunity, the waiver of immunity, does not apply, by reason of the fact that 28 U.S.C.A. 943(a) of the Federal Tort Claims Act provides that the provisions of the chapter shall not apply to any claim based upon an act or [383] omission of an employee of the Government based upon exercise or performance or failure to exercise or perform a discretionary function or duty on the part of a Federal agency or an employee of the Government, whether or not that discretion involved be abused.

We wish likewise to add to that ground the fact that if some of the acts are found to be discretionary and some are not discretionary, under the rule that when damages may have resulted from one of several causes and that it is as probable that it may have been from one cause, for which defendant was

not responsible, as from one for which it was, the plaintiff likewise has failed to make out a case.

On those two separate grounds we move for dismissal, under Rule 41(b) of the Federal Rules of Civil Procedure.

The Court: I think that that clause of the Act has no application to this case. The performance of a discretionary act or the failure to perform a discretionary act applies in an entirely different situation. Where the Government were appealed to to do some act or perform some work which was discretionary within the statutory powers of a Government employee, then if he exercised his discretion and failed to perform the act of course there would be no liability under this section, and I think that is only a statement of the ordinary law on the subject.

Now, you have gone to a good deal of trouble to [384] prove that this act was discretionary, but the way you use that term is in an entirely different sense than the way the term is used in the Act. You are using it to cover a professional choice. The engineer is professional, and, when he exercises his discretion, in order to avoid liability in private affairs and concerns he must exercise his discretion according to the rules of his profession, of a sound professional practice. If he fails to do that under an appropriate situation, then he can be held to be negligent for that failure and under certain circumstances can be held liable for damages.

The proof in this case has indicated, from plaintiffs' witnesses, at any rate, that it was not sound

professional practice to build a canal over a porous structure of this sort without either lining or building a core wall of sufficient depth to prevent the seepage of moisture. By that is set up, according to that testimony at least, the professional standard, and the other proof has tended to show that there was a breach of professional duty by a failure to exercise the standards which would be common in engineers in this type of project.

I think I can illustrate the difference between the two senses in which the word is being used by taking the example of a doctor. A doctor is going along the road and he finds somebody lying there injured. He has discretion as [385] to whether he will treat the person or not. If he does not assume to treat the person there is no liability, it doesn't make any difference what he could have done for him, because he owes no duty to the person whatsoever, and therefore that is a discretionary field. On the other hand, if he assumes to treat the person, he still has discretion as to the means which he will employ, but if he fails to employ the skill which is common to the reasonable practitioner of medicine in that particular locality then he is liable, and I think that those are the principles that are here applicable.

These motions are overruled. The main motion for dismissal is still continued under advisement.

Mr. Lytle: If the Court please, may I approach counsel at the table a moment?

Mr. Hess: Call Mr. R. J. Newell.

R. J. NEWELL

was thereupon produced as a witness for the defendant herein and, having been first duly sworn, was examined and testified as follows:

The Clerk: R. J. Newell.

Direct Examination

By Mr. Hess:

Q. Where do you reside, Mr. Newell?

A. Boise, Idaho.

Q. How long have you resided there?

A. I took up residence there about forty-five years ago. I have been in and out of town several times for short periods.

Q. In connection with your official duties?

A. That is right.

Q. What is your age, Mr. Newell?

A. Sixty-eight.

Q. Will you just state to the Court your educational background, generally?

A. I completed a standard engineering course in Highland Park College of Des Moines, Iowa, and took a Bachelor's degree in 1903 and a Master's degree in 1910.

Q. Where did you take your Bachelor's degree?

A. In Highland Park College.

Q. And your Master's degree? [387]

A. The same school.

Q. And how long have you been a practicing civil engineer?

A. For forty-five years, with a lapse of five

(Testimony of R. J. Newell.)

years in which I did only occasional engineering work.

Q. Are you a member of any professional society of engineers? A. Yes, sir.

Q. Will you state that, please?

A. The American Society of Civil Engineers and the Idaho Society of Professional Engineers.

Q. Have you ever written any technical treatises or articles with respect to problems of civil engineering?

A. I have written articles on dam construction for engineering magazines and prepared technical reports on reclamation projects.

Q. Would you give the names of some of those articles you wrote, if you can recall them, and where they were published?

A. One article, on the construction of the Cle Elum Dam, was published in *The Engineering News Record* and *The Military Engineer*.

Q. When?

A. About 1933. Another, on the construction of the Deadwood Dam, was published in *The Engineering News Record* a little earlier.

Q. And what is the official position you now occupy?

A. Regional Director of the Bureau of Reclamation for Region I. [388]

Q. And of what is that Region comprised?

A. The area drained by the Columbia River and coastal streams in the neighborhood—practically Washington, most of Idaho, the Western slope of

(Testimony of R. J. Newell.)

Montana, and parts of Wyoming, Utah and Nevada.

Q. And how long have you occupied that position as Regional Director of the Bureau of Reclamation for Region I?

A. I was Assistant Regional Director from 1943 until 1945, and Regional Director since 1945.

Q. And what do the duties of that job entail, that is, the general duties?

A. The supervision of all the activities of the Bureau of Reclamation in the Region.

Q. Would you name some of the major projects within that Region?

A. There are three long-time operating projects, the Yakima, the Boise, and the Minidoka; the Owyhee Project, more recently built; and under construction now the Columbia Basin, the Hungry Horse, and a number of other projects.

Q. Your Region includes, as you have stated, takes in such projects as Bonneville and Grand Coulee?

A. Not Bonneville.

Q. Not Bonneville.

A. But Grand Coulee is included.

Q. I see. And all of those projects within this Region, as [389] you state, are under your immediate supervision, is that correct?

A. That is right.

Q. How long have you been connected with what is known as the Owyhee Reclamation Project, of which this North Canal is a part?

A. I was employed on investigations from about

(Testimony of R. J. Newell.)

1923 to 1926, and assumed charge of construction and operation in 1933, to date.

Q. State whether or not you prepared the reports upon which the findings of feasibility for this project were entered—were made, rather.

A. The report was a joint report by Mr. Bond and myself.

Q. Would you tell us who Mr. Bond is, or was?

A. He was the Superintendent of the Boise Project for the Bureau of Reclamation at that time.

Q. Is he now living? A. Yes.

Q. Where does he reside?

A. Between San Diego and Los Angeles, a little Coast town that I have forgotten the name of now.

Q. Is he retired? A. Yes.

Q. Would you describe the extent of the investigation that was made on the Owyhee Project prior to construction? [390]

A. The investigations had been carried on over a number of years and included studies of water supply and land and engineering works necessary to conduct the water to the land. The study of the land would include determination of all the land that could be covered and then a determination of the part of this land, on account of the soil and topography, that was suitable for irrigation; and then a further determination as to the ability of farmers on that land to repay costs of the project; then the plans and estimates of cost for the engineering works necessary.

(Testimony of R. J. Newell.)

Q. What was the cost, the general cost, of the Project, the over-all cost?

A. Between eighteen and nineteen million dollars.

Q. Who prepared the plans and specifications for the construction of the North Canal?

A. They were drafted in the Project office and reviewed and issued in the Chief Engineer's office at Denver.

Q. Would you give a description of this Owyhee Project generally, that is, the irrigable acres and what it entails?

A. It is located in a long strip along the west side of the Snake River, extending fifty or sixty miles, part of the land being in Idaho and part in Oregon.

Q. How many acres of irrigable lands did that include?

A. About 101,000, not including the Owyhee Ditch lands, which have some supplemental water from the Project. [391]

Q. Could you give an estimate of the number of families that are situated on this Project area?

A. There are about 1500, also not counting the Owyhee Ditch Company's lands.

Q. Are all of them served by the Project?

A. That is right.

Q. What is the yearly cost, the estimated yearly cost, of operation and maintenance on this North Canal, that is, the North Canal only, that part of the Project?

A. It is in the neighborhood of \$200,000. It is

(Testimony of R. J. Newell.)

difficult to differentiate closely between the North Canal and the South Canal, which are operated by the same forces.

Q. But for the North Canal you estimate that it is approximately \$200,000, is that correct?

A. Right.

Q. Would you describe this area of 101,000 acres that you have mentioned as it existed prior to the time the Owyhee Project was constructed?

A. About one-third was and had been irrigated by pumping from the Snake River for a number of years, and about two-thirds was new land, in sagebrush.

Q. Just state, taking the area generally from the break upstream and downstream, from that angle, where was most of the pumping, the majority of the pumping? Did you understand that question? [392]

A. There was more pump land upstream than downstream, if you include the Idaho area, which had the largest single pumping district.

Q. Was this approximately 65 per cent of which you speak occupied prior to the construction of the canal? A. No.

Q. Well, what was the nature of that land?

A. It was sagebrush land that grew no crops—a little grazing. There were a few weeds and onions in the spring and in the fall that stockmen grazed off.

Q. How many families would you estimate came into the area of what you have described, this Owy-

(Testimony of R. J. Newell.)

hee Project area, as a result of this construction?

A. About one thousand on the land directly.

Q. Are these families now making a success of their farming operations?

A. Practically all of them.

Q. And since the construction of the canal, the North Canal, and the time in which the first waters were turned down the canal? A. Yes.

Q. Will you describe the situation that prevailed on the area which was served by the pumping from the Snake River prior to the time the system was constructed?

A. Most of the pumping districts had been paying for pumping [393] power at commercial rates and were in extreme financial difficulties.

Q. Was that on account of the pumping liabilities, that is, the costs, and so forth?

A. That was on account of the cost of operation and maintenance, yes, sir.

Q. Well, what effect did the construction of the Project have upon that situation?

A. The cost of power was very much reduced and was also spread over the pump lands and the new lands also, so that the annual cost was much less than it had been.

Q. That is, the annual cost per acre?

A. That is right.

Q. And that was such, as I understand your testimony, as to bring into a high state of production some 65,000 acres of land that had theretofore been barren sagebrush land?

(Testimony of R. J. Newell.)

A. That is right, 65,000 acres were added agricultural lands.

Q. What was your experience in the location and construction of canals prior to the time you built this North Canal?

A. I started working on location and construction of canals in 1906 and have been employed part of the time ever since. The Boise Project canals were under my supervision from 1926 to 1931, and beginning with 1933 the Boise canals and the Owyhee, in both construction and operation, have been directed by me. [394]

Q. You have directed their construction, is that it? A. That is right.

Q. How does the New York Canal, that is, this main Boise canal, compare in size and capacity with the North Canal?

A. The capacity of the New York Canal is about 2800 second-feet. The North Canal on the Owyhee Project at the head is about 1100, I believe, and at the site of the break about 450.

Mr. P. J. Gallagher: May I ask the witness to give me those figures again?

The Court: Well, it is available for you here in the record. Go ahead.

Q. (By Mr. Hess): What other experiences have you had in locating and constructing and operating of canals other than stated by you?

A. I have reviewed actual construction and operating experience direct, but in the past five years

(Testimony of R. J. Newell.)

we have been in general charge of all the canal work in the Northwest region.

Q. Who located the canals on what is known as the Vale Project?

A. I made the location of the canals on the Vale Project.

Q. I am not certain whether you covered this or not, but since 1933 have you been in charge of the locating and construction and operation of the canals on the Owyhee Project and the Payette Division of the Boise Project?

A. When I came to the Owyhee Project in 1933 there was about [395] five miles at the head constructed. I have been in charge of all the plans on both the Owyhee and the Payette Division of the Boise Project.

Q. And, of course, that included all of this section of the North Canal on which this break occurred?

A. That is right.

Q. Were you employed by the Bureau of Reclamation at the time the project was approved by Congress, that is, the Owyhee Project?

A. Yes.

Q. What are the steps in gaining and securing the approval of this Project—what were those steps?

A. It was necessary to have a finding of feasibility by the Secretary of the Interior, and then, of course, appropriation of funds by the Congress.

Q. And that was made up, was it not, based upon the reports that had been submitted—the reports,

(Testimony of R. J. Newell.)

investigation and reports? A. That is right.

Q. And you and the now retired gentleman, Mr. Bond, were the men that prepared those reports upon which the findings of feasibility were prepared, is that correct? A. That is right.

Q. Was the findings of feasibility a condition to the construction of the project? [396]

A. It is.

Q. In determining whether or not the project was feasible, what were the chief factors that were taken into consideration?

A. The amount and quality of the land, the sufficiency of the water supply, and the cost of the works required.

Q. And the cost of the North Canal was one of those important factors taken into consideration in the building of this project, was it?

A. It was.

Q. Would you just describe for the Court the major structures of the Owyhee Reclamation Project?

A. There is included the storage dam and reservoir, the main No. 1 outlet tunnel, and from the end of that No. 1 tunnel, the South Canal system extending southerly, and the North Canal and its structures and branches extending north.

Q. What was your responsibility with respect to the construction of the North Canal?

A. I was in direct charge of all the construction on the Project, except work that had been done

(Testimony of R. J. Newell.)

before I came, including the storage dam and two main tunnels and about five miles of canal.

Q. And, of course, you were in direct charge of that portion which includes the area in which the breaks occurred in which these suits are involved?

A. I was.

Q. Would you describe generally why the course of the canal as it is now situated was selected?

A. It was necessary to carry the canal at a determined elevation in order to serve the lands of the Project.

Q. Did you have any other course or strata or type of material over which the canal could have been constructed other than where it was constructed, any other discretion in that matter?

A. No, the location of the canal was practically fixed by the requirements of the land and of the storage and diversion works at the head.

Q. What were the methods and practices which were used in constructing the canal, that is, this North Canal?

A. In construction—I should start with location, I think, in that it was the general practice and standards of the Reclamation Bureau that so far as possible the water section should be located in original ground. Where the topography required that there should be some fill in the outside bank below the water line that was built in advance of the main excavation of selected materials and compacted. The brush, organic material, waste of any kind, was removed from the line of the canal, the

(Testimony of R. J. Newell.)

surface on which embankment was built, and then that surface was scored in parallel furrows about—or specified 8 inches deep and 3 feet apart, in order to get bond between the filled material and the original ground. [398]

Q. Was that standard and customary method of canal construction? A. It was.

Q. And state whether or not that was the best engineering practice or not.

Mr. P. J. Gallagher: I think it ought to be shown whether or not that is his opinion that that is the best engineering practice.

Mr. Hess: That is what I am asking for, his opinion.

The Court: Not only that, but you told him what opinion you wanted him to state.

Mr. Hess: Well, I will just ask this question, whether or not that standard practice as required by the Bureau of Reclamation, whether or not that was good and approved engineering practice in the construction of canals?

A. That was the standard practice of the Bureau of Reclamation at that time.

Q. Well, the question was, was it good, was it first-class construction practice, as——

Mr. P. J. Gallagher: Just a moment. I think this last question is improper, because he says it is the best engineering practice so far as the Reclamation Bureau is concerned.

The Court: Well, I think I will let him answer it. This examination is leading, but that doesn't

(Testimony of R. J. Newell.)

have much effect on my mind, I will tell you [399] that.

Q. (By Mr. Hess): Would you answer the question, Mr. Newell?

A. In my opinion, it is good engineering practice.

Q. Well, now, in the construction of this North Canal, state whether or not that standard method of the Bureau of Reclamation was complied with in the construction of the canal? A. It was.

Q. A contract was entered into for the actual construction of the canal, was it not, by the Bureau of Reclamation? A. It was.

Q. And who had that contract?

A. J. A. Terteling & Sons, for that particular section of the North Canal.

Q. That is, where the break occurred?

A. That is right.

Q. State whether or not they engineered the canal or whether or not the Bureau furnished its own engineers.

A. The Bureau furnished all engineering and inspection service.

Q. And who accepted and approved the work that was done under the Terteling contract?

A. There was a construction engineer directly employed on that canal.

Q. And who was that engineer?

A. O. G. Boden, and he——

Mr. P. J. Gallagher: That name again, please?

A. O. G. Boden.

Mr. P. J. Gallagher: Yes.

(Testimony of R. J. Newell.)

A. He accepted the canal and usually I went over it with him before the final estimate was approved.

Q. (By Mr. Hess): State whether he worked along with the construction contractors during the time of the construction, that is, at all times during their construction?

A. He and his surveyors and inspectors were on the canal at all times it was under construction.

Q. What was the capacity at which this canal was constructed at Mile Post 36 and in that vicinity?

A. About 450 second-feet.

Q. Was there any leeway permitted for the purpose of safety in the carrying capacity of the canal?

A. The outside bank was built to a minimum of three feet above the designed water surface, and usually the freeboard was considerably more than that three feet.

Q. How much more water than 450 second-feet in this vicinity do you think the canal could safely carry, that is, under ordinary conditions—as constructed?

A. With the designed minimum freeboard we usually estimate that a canal can be increased to 10 per cent above its designed capacity. That would not overtop, by any means, however.

Q. When was water first turned down this North Canal to irrigate the lands which it served, that is, the approximate [401] time of the year?

A. It was late in 1935.

(Testimony of R. J. Newell.)

Q. And has the water been used in the canal for irrigation at all times since that time?

A. It has been used throughout the irrigation season ever since, except for this break and one previous break.

Q. Where was the previous break?

A. Oh, it was about thirty miles up the canal from the last break.

Q. Had there ever been any break of this canal from a point approximately 30 miles upstream from this break to and including its entire length downstream at any time since it has been serving this area, other than the break or breaks in question in this litigation?

A. Yes, sir, there was one minor break in so-called East Cow Hollow some time in the intervening period. I am not sure of the date.

Q. How long did that prevent people from receiving water downstream?

A. It is my recollection that the water was turned out on that occasion not more than two or three days.

Q. How far is Cow Hollow from this Mile Post 36?

A. I guess about 10 miles upstream.

Q. Would you describe the structure of this North Canal at the point of the break, that is, the construction? [402]

A. The location of the canal at the point of the break was along the lower part of the sidehill. It was at a point where a small part of the outside bank

(Testimony of R. J. Newell.)

was in fill and required a core bank, and it was located rather deep in the sidehill, so that the outside bank was very heavy.

Q. State whether or not you would call this a cut or a fill, generally, where this break occurred.

A. The greater part of the section was in cut. Part of the outside of the bank within the minimum section was in fill, a rather small part. I am speaking now from the record and not from my personal observation.

Q. Who is personally qualified to testify as to the exact construction therefrom his own personal knowledge? A. Mr. Boden.

Q. State whether or not this earth section there was located on sloping ground and whether or not it was built according to the standard of the Bureau of Reclamation.

A. It was, along the lower part of the sidehill, and, to the best of my knowledge, it was built according to our regular practice.

Q. Now, your regular practice, state whether or not in putting in a core fill, as you state,—that is, what class of material was used and how it was used.

Mr. P. J. Gallagher: Now, this is objected to, unless he knows what was used in there. [403]

Mr. Hess: I am just asking him as to his standard, your Honor. He is talking about the standards of core banks. I am asking him what it was.

The Court: Well, unless he testifies there was a core bank here I am not interested in it.

(Testimony of R. J. Newell.)

Q. (By Mr. Hess): Would you describe the purpose of a core bank?

A. As previously stated, it was the practice to locate a canal so that the water section was in original ground. Where topography made that impossible the minimum section of the outside of the bank was built of selected materials and compacted; then the balance of the excavation was just thrown over, without any stratification or compaction.

Q. In your opinion, state whether or not that is good engineering practice in canal construction.

A. Yes, sir, that is the practice we are following everywhere I know of canal construction being carried on by the Bureau now.

Q. How are core banks constructed and bonded to native materials?

A. The brush and trash and organic matter is cleaned off the base of the fill, to begin with, and then selected materials are hauled in with cats and scrapers and compacted by the travel of the Caterpillars.

Q. There has been testimony introduced in this case to the effect that there was no evidence in the first break that a core wall or a core trench had been used in original construction. Is what is designated as a core bank the same as a core wall?

A. No; a core bank, as we use the term, is a minimum section of bank in fill, which to support—to cut off the water must be of selected materials and compacted. It is not the practice to cut a trench

(Testimony of R. J. Newell.)

in the foundation beyond those scoring furrows that are required.

Q. Do you regard it as sound engineering practice to use a core bank rather than a core wall?

The Court: Now, just a moment. Before you go into this proposition I want to know that there was a core bank there.

Mr. Hess: The evidence will so show, your Honor. We will follow it up with other evidence.

The Court: That is what I want to know. I want to know whether there was a core bank there before I go into hypothetical questions based upon the theory that there is one there.

Mr. Hess: Of course, we can put this witness back on after I call Mr. Boden.

The Court: I don't care anything about that. I am just telling you now that there is no basis for that hypothetical question.

Q. (By Mr. Hess): It is observed that certain areas of the [405] canal are lined with concrete, whereas other segments of the canal are not. Would you explain the reason for that type of construction?

A. Where the canal line was located high on a steep sidehill so that a break would be especially dangerous, and where the appearance of the formation was unfavorable, concrete lining was resorted to.

Q. Did you participate in the engineering decisions as to whether or not the whole canal should be lined? A. I did.

Q. Please tell the Court what factors entered

(Testimony of R. J. Newell.)

into the judgment and decision not to line the whole canal?

A. The cost was the principal factor, and the doubt of the necessity was a further reason. It would be agreed that a concrete-lined canal would be somewhat safer than one without concrete lining, but the record of this canal, it seems to me, bears out that concrete lining for the whole length was not necessary.

Q. Well, the factor of cost, would that have some relation, from one section of a canal and people irrigating on that, as in comparison with other people on another portion of the canal, and, if so, would you describe what there is?

A. Certainly. If it had been decided to line the North Canal with concrete for additional safety it would have been necessary to line the South Canal of the same project to secure [406] equal safety in that part of the project.

Q. Well, would such expensive measures have removed the risk entirely, the risk of the breaking of the canal?

A. No; concrete lining of a canal does not provide complete safety.

Q. Well, what would the relative cost be per acre for people who irrigated their lands?

Mr. P. J. Gallagher: I don't think that the witness has shown that there was any computation made, your Honor. Objected to as immaterial, anyway.

The Court: Well, I think he is competent to say.

(Testimony of R. J. Newell.)

He made a recommendation as to the feasibility, so I don't think there is any doubt about his competency to speak upon the question.

A. At the prices that were then in force,—and this project was built when construction costs were very low—it is estimated that the cost per acre would have been increased forty or forty-five dollars if all the North and South Canals had been lined——

Q. (By Mr. Hess): Dollars per acre? Forty-five dollars per acre?

A. That is right,—and it is assumed in that estimate that the canal would have been smaller if concrete-lined, and credit has been taken for less excavation in arriving at that figure. [407]

Q. State whether or not you would regard the decision not to line the canal as a sound one from a standpoint of good engineering? A. I do.

Q. Are you familiar with the various methods of lining that might have been used?

A. Yes. Other methods of lining are being studied and practiced to some extent all the time.

Q. What other methods, generally, are being used, studied and used?

A. The most common method is earth-blanketing of selected earth and gravel rolled into place after the canal has been excavated.

Q. Well, is that inside or outside the banks of the canal? A. Inside.

Q. Would you indicate to the Court what the cost of those measures would be per acre, approximately?

(Testimony of R. J. Newell.)

A. I am not prepared today to make an estimate of cost of earth-blanketing all the North and South Canals.

Q. Would you state why, at the particular point where the canal break occurred, concrete lining was not used?

A. Because the line was located near the foot of a sidehill, the supporting ground below the line being a gentle slope and nothing on the surface indicated a particular hazard at that point. [408]

Q. Would you explain what you mean by the slope, the outside of the canal, being gentle,—what do you mean by that?

A. Well, there was no steep sidehill below the canal.

Q. Could you drive a car down it?

A. Oh, yes.

Q. Are you acquainted with practices of location and construction of canals in this area other than that under your direction?

A. I am more or less familiar with all canals in this general area.

Q. In your opinion, state whether or not it would be good engineering practice to line the inner bank of that North Canal and in the region where this break occurred,—that is, the upper bank, the uphill bank.

A. I think that it very rarely is of advantage to line the upper bank of a canal.

Q. Now give your reasons.

(Testimony of R. J. Newell.)

A. A certain amount of water seeps into the hillside above the canal, and, if the canal is not lined, as soon as the irrigation season is over it seeps out again. If there is lining there to prevent it from seeping out, it would either soften up and slough down an earth lining or in the wintertime heave and break up concrete lining.

Q. State whether or not it was the practice in the construction of this canal for the treatment of porous areas when [409] these were found in the course of excavation?

A. In areas—any areas that unsuitable material was uncovered in the excavation were overdug and replaced by selected material.

The Court: Well, was that done at this particular spot? A. I can't testify as to that.

Q. (By Mr. Hess): Now, then, referring back to this Terteling contract, Defendant's Exhibit No. 63, was there any complaint on the part of the engineers to the effect that that canal was not being constructed in accordance with plans and specifications?

Mr. P. J. Gallagher: Just a moment. That is objected to as incompetent, irrelevant and immaterial, and the witness has not shown that he knows whether or not there would be any complaint, and that would not be the best evidence.

Mr. Hess: Well, he would know. He was generally in charge of the entire project.

The Court: Well, I don't think that he necessarily knows, but how can that be material?

(Testimony of R. J. Newell.)

Mr. Hess: Well, to show that it was constructed according to plan.

The Court: I don't know that that was constructed according to plan, if there was no complaint.

Q. (By Mr. Hess): Well, I will ask that question, whether or not this canal was constructed according to the plans and [410] specifications of the Terteling contract?

Mr. P. J. Gallagher: The same objection.

The Court: Well, if he knows he may answer.

Mr. P. J. Gallagher: Yes.

Q. (By Mr. Hess): If you know whether it was?

A. I have been over the canal from end to end, and to the best of my knowledge it was built according to the plans and specifications.

Mr. Lytle: Move to strike the answer as not responsive and not referring to the particular section in question.

The Court: No, I think it is all right. I can make up my mind as to how much he knows about it from that answer.

Q. (By Mr. Hess): In this contract was there any price ceiling set for the construction of the North Canal, or was there flexibility in the handling of different strata and construction according to the good engineering practices as set down by the Bureau of Reclamation as the situation may be encountered on the ground?

Mr. P. J. Gallagher: Just a moment. That contract is in evidence, your Honor, and if that thing is in the contract the contract itself would be

(Testimony of R. J. Newell.)

the best evidence, and, besides that, it is wholly immaterial as to the issues involved here whether there was flexibility in the contract and in the price.

The Court: Well, I think he may answer. A good deal of [411] this has no weight with me, I will assure you, because he is testifying generally, and I know just as much about it generally. I have been looking at the contract and the thing on the ground and I know that in a general way it was constructed according to the specifications, but that doesn't help you any in this situation, because you have to prove, as I understand it, that you are going to make out your case that this particular section was constructed in a way which was conformable with good engineering practice, and if the specifications did not state at that point and make it conform to good engineering practice then this issue would be against you.

Mr. Hess: I will frame that question just a little differently,—withdraw the question there and ask this question:

Q. As construction work was being carried on over the ground, that is, the project, was leeway made or flexibility in the costs? In other words, did the contract—or was there additional money made available for conditions that were extraordinary that you would face and should be protected to prevent excessive seepage?

A. There was not a fixed ceiling on the amount that could be expended under each contract. The project was found feasible under total estimated

(Testimony of R. J. Newell.)

cost, which was made up of items covering the North Canal, among other things, and feasibility would have been affected if the cost had greatly exceeded the original [412] estimate.

Q. What was the cost per acre for the construction of this North Canal?

(Mr. Gallagher here conversed with Mr. Hess in an undertone.)

Mr. Hess: Well, I will withdraw that question.

Q. What was the cost per acre for the construction of this project?

A. The total cost for the entire project was about \$180 an acre.

Q. Was any provision made in the construction of this canal for the runoff of water that may accumulate by rainfall and snow and springs, or other water accumulating and running up above the canal?

A. There was a culvert placed under the canal at every gulch or draw that showed evidence of live water flowing. Sometimes a small draw would be diverted above the canal over to an adjoining draw so that two of them could use the same culvert.

Mr. Hess: I think that is all.

Cross-Examination

By Mr. Gallagher:

Q. Mr. Newell, your work in the construction of the Owyhee Project was largely supervisory, was it not? A. Yes.

(Testimony of R. J. Newell.)

Q. And, assuming that you and Mr. Bond prepared the plans [413] and specifications and feasibility report, after the contract was let a new corps of engineers came into the territory for construction purposes?

A. I was the head of the new corps of engineers from 1933 on.

Q. Mr. Banks worked on the project?

A. That is right. He was in charge of all construction prior to 1933.

Q. And the project had gotten along, substantially well along, by the time Mr. Banks was called to other fields?

A. He had practically completed the storage reservoir and the main tunnels and five miles of canal.

Q. Five miles of the North Canal? A. Yes.

Q. That would take you from the siphon at the Malheur River—or at the Owyhee River, around towards Nyssa Butte?

A. No, his work just reached the crossing of the Owyhee River.

Q. I see.

A. I am not sure that that five miles is very accurate, but——

Q. That is right; but from that time you took over the supervision. Who did the field work? Who was in charge of the field work?

A. Mr. Boden was in charge of most of the North Canal.

(Testimony of R. J. Newell.)

Q. When was water turned in? You say in 1935? [414]

A. That is right.

Q. The canal has at the head a capacity of 1100 second-feet?

A. That is my recollection.

Q. What point do you term the head of the canal, Mr. Newell?

A. The outlet of the No. 1 tunnel, where it divides between the North Canal and South Canal.

Q. I see; and is there a control gate there?

A. There is.

Q. And the capacity, then, as the canal goes through the siphon and across the Owyhee River is 1100 second-feet, approximately?

A. That is right.

Q. Then where is the next control gate?

A. There is some control at the head of each major lateral.

Q. Yes, I know there are a number of laterals and each lateral has a headgate and to that extent there are controls, but is there any other major control on the canal and, if so, where is it?

A. Do you mean waste-ways?

Q. Anything that you can turn water out of the canal and turn flow into the canal,—call it waste-way, whatever you want to.

A. The head of every lateral and every individual turnout would so serve to some extent, and the first operating waste-way is in Market Gulch. [415]

Q. The water comes down from the head and on down to Market Gulch and there is your first waste-way, first major waste-way?

A. That is right.

(Testimony of R. J. Newell.)

Q. As a matter of fact, it is the first waste-way other than lateral gates?

A. There is a waste-way in Tunnel Canyon, and no more until Lockett Gulch.

Q. What is the capacity of the canal at Lockett Gulch, would you say?

A. I don't remember closely.

Q. There isn't a large amount of water used above Lockett Gulch, is there?

A. Oh, there are two big laterals, the Kingman and the Mitchell Butte, each of which must irrigate, I would think, seven or eight thousand acres.

Q. The amount of water that comes down to Lockett Gulch is a great deal more than what comes through the canal at the point of the break?

A. It must be considerably more.

Q. Would you say, assuming that the capacity at the break was 450 second-feet, would you say it was as much as 700 second-feet past the Lockett Gulch?

A. I think that is a fair estimate.

Q. Then the only outlets between Lockett Gulch and the point [416] where the break was were the farm laterals that worked from the ditch?

A. That is correct, and that indicates that our estimate of 700 second-feet at Lockett Gulch is a little high.

Q. A little high. Now, Mr. Newell, how much of the field work did you actually supervise down on the field, so that you can speak authoritatively from personal knowledge as to what makes up the ditch?

(Testimony of R. J. Newell.)

A. I had construction of the Owyhee Canal system and spent about two-thirds of the time actually on the work in the field.

Q. Now, there has been some discussion about what you call the core bank and what counsel tried to talk to you about, a core wall. As I understand it, your description and theory of the kind of a core wall you are talking about is to clean off the sagebrush along where the downstream side of the bank is going to be, or the bank on which you are going to build the core, then you scarify that with plow furrows, and they are ordinary plow furrows set three or four feet apart?

A. Yes, an ordinary plow furrow, and similar scoring by other equipment of about that dimension, yes, sir.

Q. Yes. And, assuming that you are going to build a bank comparable with the downstream side of the bank, how much scarifying would you employ there before you started to build your bank? [417]

A. We would just make a furrow which is required to be 8 inches deep every 3 feet up the slope.

Q. And on that thing you would take the deposit out of the cut and swing it over there with a machine and pile it up?

A. No; in the case where a core bank was needed the tractors and scrapers come through first and build the fill that was necessary for the core bank in advance of the excavating machines.

(Testimony of R. J. Newell.)

Q. Oh, I see. Where would you get the earth for that purpose?

A. Usually it was possible to use the surface of the area to be excavated, but sometimes we had to borrow from fills.

Q. Yes. Do you have any personal recollection of your own or knowledge of your own as to how any bank of any type was built where this break occurred? A. No.

Q. Now, during the balance of your testimony and for my cross examination we understand that your idea of a core bank is something that is built up on top of the surface of selected material?

A. That is right.

Q. Now I am going to ask you—now I am coming back to this matter of construction again. Counsel asked you about the size of the project and the number of acres of each classification and the settlers that came in. As I understand it, there was 101,000 acres, approximately,—now, these figures are all [418] approximate, but very close,—101,000 acres of land that was served by water,—that is, the project was designed to serve 101,000 acres of land. Of that number of acres there was approximately 16 per cent, or 16,000 acres, that was Government land, title hadn't passed out of the Government?

A. I think that is correct.

Q. Then the balance of the land, title had passed from the Government at various times prior to the time the contract was signed? A. Yes.

Q. And in that—

(Testimony of R. J. Newell.)

Mr. Hess: Just a minute. He hasn't answered.

Mr. P. J. Gallagher: Yes, he has. He said, "Yes." Am I right? Did he answer?

The Court: Yes.

Q. (By Mr. P. J. Gallagher): In that contract what we call the old land—or that isn't the right term, either,—the deeded lands, we will call them the deeded lands,—there was some of that area that had been irrigated for a great many years, particularly the Ontario-Nyssa Project?

A. That is right.

Q. And the land, the 12,000 acres, under the Owyhee Project is not included in that number of acres, is it?

A. It is not.

Q. What about the lands on the north side of the Malheur [419] River? Did you include in that figure the lands that had previously been irrigated by pumping plants down there, Mr. Newell?

A. We did.

Q. And there were some lands on the north side of the Malheur River that the title was still in the Government when the contract was signed, were there?

A. There was.

Q. Now, can you tell me whether or not there are any lands in the project now where title has not passed from the Government,—I mean irrigable lands?

A. There are a few very small tracts.

Q. Odd acres here and there, five acres?

A. Well, up to, I think, twenty acres on the largest I remember.

(Testimony of R. J. Newell.)

Q. Some of those are feasible and some not?

A. Oh, none feasible as a farm unit, I think.

Q. I see.

A. They would be of advantage to adjoining landowners.

Q. Now, these other breaks that counsel asked you about, where did they take place? There was one, you say, at Cow Hollow that you remember very well, then one at a point about ten miles above the break that we are talking about.

A. I remember there was a break in Cow Hollow and I was there before it was completed, but I am not sure just how long the water was out of the canal. [420]

Q. Are you familiar enough with that area to be able to say whether the canal followed about the same type of structure as it did down at Mile Post 36?

A. No; the canal where it broke in Cow Hollow was in deep cut.

Q. In a deep cut? A. Yes.

Q. Now, what other breaks do you recall on which you can give me some idea as to the nature of the terrain that it was built over?

A. The 1940 break between the Owyhee River and Mitchell Butte was at a point where the canal was located around the end of a ridge, a rocky ridge.

Q. That would be somewhat like this Mile Post 36 break? Or would it?

A. No, it was a more dangerous looking situation, I considered, than this one.

(Testimony of R. J. Newell.)

Q. And do you recall other breaks, Mr. Newell? What I mean, breaks of substantial size and seriousness?

A. I don't remember others that required unwatering the canal for more than a day.

Q. Have there been a number of small breaks that required some attention and turning the water out for short periods of time.

A. In laterals, yes. [421]

Q. But not in the main North Canal?

A. I think not.

Q. Now, on your core bank, when the land is scarified along the proposed ditch bank and the engineer in charge determines whether or not you will have to bring in new fill, that is put in and packed with the equipment that you have at hand?

A. That is right.

Q. And at a certain time the cats—not cats, but the draglines, or whatever equipment you use to excavate with, swing over the material and pile it up on the bank?

A. That is right.

Q. What is done with the compaction of that bank after you get past the core wall stage?

A. Nothing.

Q. And the height of the bank depends entirely upon how much land you must waste out of your cut?

A. That is right.

Q. And that is leveled off and you have a highway up there?

A. Right.

Q. Now, do you recognize the fact that there might be danger in cross-cutting a porous stratum

(Testimony of R. J. Newell.)

that would soak up the water where there is no core wall of the nature that would cut that porous stratum off?

A. Wherever specially pervious stratum was encountered it should have attention. [422]

Mr. P. J. Gallagher: Will you read that question—or, not the question, but the answer?

The Court: Yes.

(Last answer read.)

Q. (By Mr. P. J. Gallagher): Mr. Newell, have you examined these pictures, especially the one marked Exhibit 73, and other pictures that show the north or mountainside bank of that canal out there?

A. Not carefully, no.

Q. If they show that there is present out there now embankment that contains just loose river gravel, would you say that that might indicate a dangerous condition?

A. In the upper bank?

Q. In the upper bank?

A. Not necessarily.

Q. Well, you say “not necessarily.” Do you mean that there might be danger there but you want to qualify the statement?

A. If the gravel, loose gravel, extended into the bottom and to the outside, then certainly it should be dug out and blanketed, but if it is just in the upper slope then I am not much concerned.

Q. I see. Well, assuming that your ditch and construction across the country intersects a gravel bed or a bed of porous structure that does get into the bedding of the ditch and under the ditch and

(Testimony of R. J. Newell.)

up the inside bank and of such nature that [423] water would seep into it, would that, in your judgment, be a condition that should be remedied?

A. Yes, sir.

Q. I presume that if the situation out there is as portrayed on that Exhibit 82 that is one that should receive some attention, 82 being the white one with the creek up there, the ditch up there, on the sidehill?

Mr. Lytle: That is 80.

Mr. P. J. Gallagher: Oh, I beg your pardon, your Honor, I am referring to 80. Suppose a condition actually exists as portrayed on there, would you say that that was such a condition that should have some special remedying? A. Is this——

Q. That one, yes.

A. If there is a loose, porous stratum located as the exhibit shows, then it should be corrected.

Q. Now, in your years of actual experience I presume you have seen ditches and canals, Mr. Newell, where water seeped out of the side and water arose at the toe of the canal and even springs came out? I presume you have seen that?

A. Yes, sir.

Q. What would that indicate to you as to the porosity of the canal banks or of the canal bed?

A. If seepage appears on the outside of the bank, then naturally the bank is pervious, and if it appears below the [424] bank, above any farmer's own irrigation, then it would indicate that there was seepage under the bank.

(Testimony of R. J. Newell.)

Q. Now, take a canal that was built, say, in 1934, as this canal was built, and those indications of seepage are present for a number of years, that would lead you to think that water might be seeping through there that would naturally tend to weaken the stability of the canal itself?

A. If seepage had been present in the outside of the bank, then that is correct.

Q. And the longer it goes, the longer the condition exists, the more injurious it is to the bank of the canal?

A. No, I don't think so. I think every year an earth canal stands it is safer.

Q. Well, that would depend upon how much water it has soaked up?

A. No, I would still have the same opinion, that every year an earth canal conserves it is safer.

Q. Do you recognize that as time goes on and the seepage increases there might come a time when that bank got so wet it would have no resistance to the pressure back of it?

A. If the bank itself was seeped and if the seepage increased I would agree with you, yes, sir.

Q. Well, assuming or taking into consideration the fact that this ditch, right in the middle of the irrigation season, without any additional water in the ditch for pressure, no storms [425] or earthquakes or anything, went out, wouldn't that indicate to you that that ditch was pretty wet?

A. That there was a weakness somewhere, yes, sir.

(Testimony of R. J. Newell.)

Mr. P. J. Gallagher: Your Honor, it is after five and I won't complete this, quite, this evening. If I could take a little time tonight I could proceed very early in the morning.

The Court: Well, why not proceed? No use asking so many questions. Let's go ahead. If you think about any in the morning we can take care of that then.

Q. (By Mr. P. J. Gallagher): When did you first learn that this break had occurred, Mr. Newell?

A. The day of the second break.

Q. The day of the second break. So that you are not acquainted with the—Or did you direct any of the things that were to be done in the repairing of the breaks?

A. Not in the first break. I went over it the next morning after the second break and looked it over and consulted with the people there and went out and got them some more equipment.

Q. Now, counsel asked you also about the practice of putting in culverts to take care of stream flow above the canal. There was no provision made for taking care of any surface water in the immediate vicinity of this canal at all—this break, I should say?

A. Oh, there are culverts at rather frequent intervals along [426] the North Canal. I couldn't say just how far distant from this particular point.

Q. Now, you were also asked about why you chose concrete lining at times, and I think you said because you took into consideration the formation

(Testimony of R. J. Newell.)

you built over and the distance the canal was from the valley floor,—That would be an element of danger? A. That is right.

Q. And there is a spot where this ditch is concrete-lined both above and below this break—immediately above and below there?

A. There are two points where this canal is lined, that is right.

Q. Now, counsel also asked you as to why you did not line this particular spot with concrete and you said one reason would be the ever-present element of cost, you didn't think it was necessary for safety at this point. Did you arrive at that conclusion yourself, or was that the judgment of your men that you had working under you?

A. I do not think that I examined that particular point before construction was concluded.

Q. I see. Now, counsel also asked you about costs and talked to you about the cost of lining the whole canal. Assuming that there are a great many areas that this canal could run through without danger of leakage or breakage, have you [427] ever estimated how many spots there are that should be lined according to good engineering practice and in order to avoid danger?

A. I do not recognize any points that should be lined by concrete now.

Q. Well, do you recognize that it would be proper to line various points with earth, the same as you have lined this canal, both to keep it pre-

(Testimony of R. J. Newell.)

served and also to save water? Are there spots of that kind?

A. There spots on sharp curves where the bank is eroded and those should be and are being lined with something that will stop the erosion.

Q. However, you haven't got around to this spot yet?

A. I don't think there is any erosion going on at this point now.

Q. Now, you are speaking of the erosion on the outside wall, the lower bank wall? A. Yes.

Q. So far as you know, had your attention ever been called to the condition of this north bank as to its porosity or danger of soaking up water there prior to the break? A. It had not.

Q. And perhaps you had never noticed it yourself, had you, Mr. Newell? A. I did not. [428]

Q. Now, if you had seen this condition as depicted even by these photographs, and had also considered water seeping from the bank on the lower side, do you think now that you would have checked on that and have done something to remedy that leaking condition?

A. If I had seen water seeping through the bank or immediately at the toe of the bank I would have directed that something be done.

Q. And you would have done that because you would have thought it would be necessary to preserve the ditch? A. That is correct.

Q. Was your attention ever called to the fact that there was a living stream of water running out

(Testimony of R. J. Newell.)

of the arroyo or canyon just above this break?

A. Do you mean upstream or downstream?

Q. Downstream.

A. There is a cut there and I have no doubt it has had some high water two or three times.

Q. Was it ever called to your attention that immediately south of the break and in the Hust field, some hundred or hundred and fifty feet down from the toe of the bank, there is a stream of water flowing there now?

A. I haven't been to see that leak, no, sir.

Q. You are acquainted with the fact that it is there?

A. Yes, sir. [429]

Q. There are other leaks that have developed and are now running water on the Hust ranch above these two breaks? Or do you know?

A. I don't know. Do you mean anywhere above the Hust ranch?

Q. No, on the Hust ranch.

A. No, I don't know.

Q. I think you said that it would have been good practice, if you had discovered this porous area, to overdig it, have it overdug and replaced with other material. That is the statement that is also applied generally not only to this spot but any spot that has that porous material in it?

A. Yes, sir.

Q. And if the porous material is not present in this spot here as indicated in these pictures it would particularly apply to this spot?

(Testimony of R. J. Newell.)

A. Of course, "porous" is a sort of a general term. If it was an especially porous place then it should be dug out and refilled.

Q. Well, if it is porous enough to soak up water, enough to make a spring down below the ditch and wet the land so that the farmer cannot farm, what degree of porosity would you say that was? That would be very porous?

A. There should have to be some source of water to wet up that ground in that fashion. [430]

Q. And a bank that would permit it to go down that way, that would be considered to be very porous?

A. If we assume that the source of the water is from the canal, yes, sir.

Q. Well, you have been in the country a long time and there wasn't much water out there before the bank was built,—about as dry a section as there is in Malheur County.

A. I have always been surprised at the number of places that the range cattle find to drink between here and the Owyhee Dam.

Q. But right in this immediate area you never saw any live water before the canal was built?

A. I don't think so.

Q. Now, you were also asked about the item of cost. As a matter of fact, these farmers don't know yet what they are finally going to have to pay as construction cost, do they?

A. They haven't stopped asking for additional

(Testimony of R. J. Newell.)

construction items yet, and until that time is reached we can't determine the final cost.

Q. That is right; and whatever the cost might ultimately be, under the contract it is all paid for by these farmers anyhow, isn't it? That is true?

A. That is right.

Q. So the item of cost and expense of the project, whether it is \$150 or \$175 an acre, is largely a matter of concern [431] to the farmers and not to the Government? That is true?

A. The Secretary found this project feasible on an estimated cost of \$18 million, and if the cost exceeded that very greatly we would not be permitted to greatly exceed it without a new finding of feasibility or some such arrangement.

Q. Well, of course, what one Secretary finds as to the feasibility might not be indicative of what another Secretary would find; that is true? Or what a New Deal Congress would say was good would be something that another Congress might not say was good?

The Court: That question is stricken. It has no pertinence in this lawsuit.

Q. (By Mr. P. J. Gallagher): Anyhow, it is a question of where the committees in Congress and the Secretary get together on what is feasible?

A. It is necessary for the Secretary to say that—to certify that probably the entire cost of the project can be repaid by the water users under a period allowed by Reclamation law.

(Testimony of R. J. Newell.)

Q. And that is the basis of the feasibility?

A. That is right.

Q. Then if Congress—If the committees in Congress agree with the Secretary, the money is then appropriated?

A. Yes, sir.

Q. And the whole Reclamation law is based on the plan that [432] the cost of the project will be repaid by the actual farmer on the project?

A. That is right.

Q. Some of these old projects, of course, also have electric power?

A. Yes, sir.

Q. So that to the extent of paying off the Government the farmer has the burden of doing that in all these projects?

A. That is right.

Q. Now, do you think that you know enough about the strata where this immediate break took place as to be able to say to the Court as to where the water might go that seeps into that north bank—that west bank? Have you made a sufficient study of it, Mr. Newell, so as to be able to say of your own knowledge or have an opinion of your own as to what might happen to the water going into that bank?

A. I am not a trained geologist and have no thorough examination, but would expect that water that is soaked into the hillside above the canal would just run back out again when the canal was unwatered.

Q. Well, assume, now, that this pervious bed, pervious stratum, was deep enough horizontally, or up and down, whichever way it is, to be fed with

(Testimony of R. J. Newell.)

water during the whole irrigation season, in other words, that the water in the ditch would be pushing it higher into that pervious stratum, and that the bottom of [433] the pervious stratum was below the bottom of the ditch, wouldn't you see a danger of water coming through that pervious stratum and down below the bottom of your ditch and escaping that way? A. It is possible.

Q. And if these drawings and photographs, particularly the photographs, are correct, don't you think that there is quite a probability of that happening here?

A. No, I don't think that water that soaks into that upper bank will go around under the canal and appear somewhere below the canal. I say it is not impossible, but I wouldn't expect it.

Q. How would you account, then, for water showing up in the spring like it does on the Hust ranch, or water showing up on the Shaw ranch, as the evidence shows, before the ditch was lined? Where would you think that water came from?

A. It is agreed that there was seepage under the lower bank before the break——

Q. Yes. I think so.

A. ——and that could be the source of some wet spots below the canal.

Q. Do you think that by putting in the core wall as Mr. Terhune testified was put in you have cut off the seepage through the side of the canal?

A. I think so.

Q. That would lead to the other conclusion, that

(Testimony of R. J. Newell.)

if a core [434] wall of the same type was put in to start with you would perhaps not have had any seepage through it?

A. I think that is correct.

Q. Did you make a study of the probable causes of the second break in the canal, Mr. Newell?

A. Not especially.

Q. There has been testimony here, that I presume you have heard, that water came down and ran over the bank that the boys had built on the afternoon before the second break. You are familiar with that testimony, aren't you?

A. I heard it.

Q. Then there is testimony, also, that the ditch broke just ten or fifteen feet north of where they terminated the core wall and broke the old bank wall. You heard that, too?

A. I heard that.

Q. Have you arrived at any conclusion as to whether the break was caused by water running over the new fill or by the fact that they did not extend the core wall up far enough north when they made their first repair?

A. I have an opinion that it was not caused by the overflow but that the repair did not reach far enough downstream in the first case.

Q. That is your opinion now, that that is what may have caused the second break?

A. Yes, sir. [435]

Q. You perhaps were not out there often enough immediately before these breaks to be familiar with

(Testimony of R. J. Newell.)

the amount of water that was seeping through and showing up there in the Shaw field, were you?

A. No.

Q. Or you probably were not familiar with the amount of seepage, if any, that was coming out through the bank north of where it first broke?

A. That was coming out through the bank?

Q. Well, seeping through the bank, yes, north of where——

A. I have never heard of any seepage through the bank.

Q. You never have? A. No.

Q. Well, maybe the term was too broad. I may qualify that by asking whether you knew that there was seepage coming out under the bank north of where it first broke?

A. I was not familiar with the wet spots in the field below the canal, no, sir.

Mr. P. J. Gallagher: Your Honor, I would like to check this over and don't like to take time to stop. I would like to do that in the morning. I promise to be very brief in the morning.

The Court: All right, recess until tomorrow morning at 10:00 o'clock.

(Whereupon, at 5:25 o'clock p.m. [436] Monday, June 14, 1948, the trial of the above-entitled cause was suspended, the Court taking an adjournment to 10:00 o'clock a.m., Tuesday, June 15, 1948.) [437]

Tuesday June 15, 1948, 10 o'Clock A.M.

R. J. NEWELL

thereupon resumed the stand as a witness in behalf of the defendant and was examined and testified further as follows:

Cross-Examination
(Resumed)

Mr. Gallagher: If your Honor please, I have one more question I would like to ask Mr. Newell.

Mr. Hess: If your Honor please, before we start in with the further cross-examination of Mr. Newell I desire to present to the Court for consideration a prepared order consolidating the cases for trial in Sheff White, Civil No. 3669, vs. The United States of America and all other of the so-called failure-to-deliver-water cases.

Mr. P. J. Gallagher: We have had a copy, your Honor.

The Court: Proceed.

Q. (By Mr. P. J. Gallagher): Mr. Newell, would you know whether or not the contract between the Irrigation District and the Government in this case is a sort of a standard form of contract that you have on all of your projects, or do you know?

A. The contracts with Districts are similar. They could not be called standard contracts, because there are differences [438] to fit each individual case.

Q. But they all contain the same general provisions about payments and the things the Government wants to do, and so forth?

(Testimony of R. J. Newell.)

A. They are very similar, yes.

Mr. P. J. Gallagher: That is all.

Redirect Examination

By Mr. Hess:

Q. Mr. Newell, I am not certain whether the record shows this clearly: Did you go to the canal at the time of the first or after the second break?

A. I was not in this section of the country when the first break occurred. I returned to Boise the day of the second break and came right over the next morning.

Q. Did you observe the canal after the second break had been repaired? A. I did.

Q. Was there anything that you observed at that point, or where the break or breaks occurred, that would indicate in accordance with good engineering practices that the upper bank of that canal should be sealed?

A. There was not. I testified yesterday that there is a weakness and an objection to sealing the upper bank because any water that enters the upper bank should be allowed to come out again as soon as the water is turned out of the canal. [439] It should not be trapped back in that upper bank.

Q. And, based upon your experience as an engineer and your observation, state where this water that would seep up in the upper bank would return? Where would it return or go after it has seeped or

(Testimony of R. J. Newell.)

gone into the upper bank? Would you point that out, if you will, on the exhibit?

A. On Exhibit 80 the stratum indicated as porous in the upper bank would have—The openings in that bank would have been filled up with water to a height of the water surface in the canal and would be held in there by the water in the canal until the end of the irrigation season, when the canal was unwatered, and then it would flow directly back out of that same pervious layer into the canal and drain out the canal.

Q. Would you just be seated, now. In all of your experience as an engineer and in this part of this country where this canal has been built and similar canals, have you ever known of a canal being lined on the upper bank in the manner that has been suggested here?

A. I have never known of or practiced lining the upper bank of a canal with earth. When concrete lining is resorted to the upper bank is lined the same as the lower bank to make smoothness, so that a smaller size canal would carry the amount of water, but usually there are drains put through the concrete lining in the upper bank so that any water from above [440] the canal or any water entering the ground behind the lining can drain back out into the canal and not be trapped behind that concrete.

Q. Now, then, you were asked on cross-examination about seepage being outside the bank of the canal. What would seepage downstream from the canal below the bank and below the toe of the bank

(Testimony of R. J. Newell.)

into a field below indicate? What would it indicate, in particular, if it was a clear flow of water?

A. Any seepage emerging in a field below the canal at any material distance from the toe of the bank would not concern me particularly, and my first guess would be that it came from the farmer's own irrigation and that it would not endanger the stability of the canal bank itself.

Q. Were there any indications whatsoever at the point where these breaks were repaired that there was any seepage whatsoever below since the construction of this repair, that is, since the repairs were made, any place above the farmer's own ditch below the canal? A. There is not.

Q. Now, in your examination and observation after the second break occurred, and with your knowledge of that canal since that time and at this point, will you state, in your opinion, what caused the first break?

A. There had to be a weakness or a hidden defect below the bottom of the canal. The pervious stratum indicated on this [441] Exhibit 80 could not have been there, because if it had been there we would have dug it out and replaced it with selected material, compacted; but if we had failed to do that it would have started leaking profusely immediately after water was turned into the canal and we would have lost that canal in the first few days instead of after twelve years.

Q. Is there now any indication,—that is, since the construction of that canal at the place where

(Testimony of R. J. Newell.)

these breaks occurred, or during the repair or since—Is there anything that would indicate any necessity or advisability of lining this canal at this place with concrete?

A. No, sir. I don't believe in lining any canal with concrete that can be sealed with earth.

Q. How was the canal sealed after its construction?

A. The next operation after construction is completed and before water is being delivered in quantity——

The Court: Now, just wait a minute. This witness has testified, time and again, that he did not know anything about this and was not there at the time. Now, the way this evidence goes in, it indicates that he does know something about it. Now, it is either one way or the other, as far as I am concerned. I don't care anything about general construction of a canal, how you do it generally. If he wasn't there I don't care to hear it.

Mr. Hess: We state that it is evidence of what happened [442] here, what was done on the entire canal.

The Court: No, I don't want to know anything about it. I say that it is entirely immaterial and I don't care to hear it.

Mr. Hess: That is all, Mr. Newell.

Recross-Examination

By Mr. P. J. Gallagher:

Q. Mr. Newell, when you made the statement to

(Testimony of R. J. Newell.)

counsel just now that water seeping through the upper bank of the canal might find its way back into the canal when the water was turned off, that is based on the premise that there would be no other cavity for the water to seep into or no other place for it to go or that it did not seep downward into pervious strata? Do you understand the question, Mr. Newell?

A. I am not sure I understand it exactly, but I have stated that I did not believe it possible for the water seeping into a sidehill above a canal to find its way anywhere except the way it went in.

Q. I see; and you are basing that statement upon the assumption that the water would not percolate downward in the pervious structure through which the canal is built?

A. The canal was not built in a pervious structure.

Q. And you want to stand on that premise?

A. The section of the canal as excavated was not in a pervious structure, yes, sir. [443]

Q. And all of your testimony that you have given here as an expert is based upon the assumption that the canal was not built in any pervious structure?

A. I repeat that the canal section as excavated did not disclose pervious structures.

Mr. P. J. Gallagher: Now, could you read the question that I asked Mr. Newell, so that we may get a direct answer on that?

The Court: Ask him another question.

Mr. P. J. Gallagher: Very well.

(Testimony of R. J. Newell.)

Q. And, notwithstanding the presence of pervious material that is in the canal today and is shown by the various exhibits in this case, you still say that canal was not built through pervious structure? Do I understand you aright?

A. One could not say that pervious spots were not encountered.

Q. Well, do you want to qualify your answer and say spots instead of structures?

A. I have been trying to indicate that there was no pervious structure extending through the outside bank that was disclosed in the excavation.

Q. Well, you were not there when the excavation took place?

A. I was up and down that canal continuously during construction and after construction, although I do not recollect that particular point.

Q. I see; and you have no personal recollection now as to [444] what was disclosed at the particular point where the break took place during the period of construction or thereafter?

A. That is correct.

Q. Yes. Now, it is apparent that every year when the water was turned out at the canal this pervious stratum, or spot as you want to call it, would be obvious to anyone riding that ditch, wouldn't it?

A. There are all limits or grades of perviousness. Any earth is pervious to some extent. Water soaks into the upper bank in any earth material and drains back out after the canal is out of use.

Q. Well, then, Mr. Newell, if you were just an

(Testimony of R. J. Newell.)

ordinary ditch rider and trying to look after the welfare of the security of the ditch and you saw this pervious structure on the upper side of the bank, and you saw or could have seen innumerable seeps in the lower side of the bank, would you have thought that water was seeping through or coming out the lower side of the bank?

A. To the best of my knowledge and belief, there have never been any seeps on the outside of the canal bank itself.

Q. Oh, no, just assume that there are. Just assume that there are seeps to a point where the farmer could not farm his land down in there.

A. That is, out in the field?

Q. All right, below the toe of the bank and in conditions [445] when there was no irrigation in there, hadn't been all spring,—would that make any difference to you?

A. Unless there was flowing water within a reasonable distance of the toe of the bank, and even if it was flowing water and it was clear I wouldn't be much concerned with seepage which was some distance, 50 feet, 75 feet, from the toe of the bank.

Q. What would you say if the record showed that the ditch on the top side of the field and immediately below the toe of the bank had water running in the ditch at a time when the headgate was closed and before there was any water in the canal itself?

A. That would be of some interest if it was not immediately after the use of that farmer's ditch.

(Testimony of R. J. Newell.)

Q. What would you say if immediately below the ditch the land was so wet that the man could not plow it and his machinery bogged down in the soil in the spring before the water was turned into the ditch? Would that be any indication to you of a seep?

A. If there was a wet spot in the farmer's field at some reasonable distance from the canal I would not be much concerned.

Q. You would not be concerned. What do you call a reasonable distance?

A. Fifty or 75 feet. [446]

Q. All right, assume that water was coming out, rising to the surface, immediately under the toe of the ditch in an amount that ran into a perceptible stream, would that make any difference to you in your judging about the safety of the canal?

A. Immediately at the toe of the bank?

Q. Yes. A. Yes, sir.

Q. It would? A. That would.

Q. And taking into consideration this structure, how far from the bank would a ditch have to be before you thought it was safe—I mean a spring or a seep have to be before you thought it was safe?

A. That would depend altogether on the formation, but ordinarily anything 50 or 75 feet from the toe of the bank would not concern me much.

Q. Well, we will take a concrete example. Are you aware that in the Hust field about 100 feet north from the Shaw place and some 150 feet from the bank there is now a stream of water running of 4

(Testimony of R. J. Newell.)

to 5 miner's inches, which has increased as the years go by, would that cause you any concern at all?

A. We have given that flow of water careful attention. The amount of flow is being measured. The source of that flow has been searched for on several occasions outside of the [447] irrigation season and has not been found, and the flow has been clear throughout, I believe, so that the openings itself coming through are not increasing.

Q. And you would be perfectly willing to take a chance and let that situation remain as it is and not have any fear that the canal was in danger?

A. That leak or seep is being watched all the time and if there is a material change or if at any time it started running muddy then something must be done. Until that time, it has been going so long without damage that we are not concerned.

Q. Now, is that true of the other seeps and leaks in the immediate vicinity there, especially the one in the draw to the north?

A. The same reasoning would hold. Whenever there is an overflow of water within a reasonable distance of the canal, the ditch rider watches it; a material increase or the matter of the leak running muddy would demand attention.

Q. All right. Now, then, how would you remedy that?

A. In the case of the Hust place it is quite a difficult matter. I have stated that they have already made a lot of search for the source of that leak and have not found it.

(Testimony of R. J. Newell.)

Q. Was any consideration given to the fact that this west bank of the canal was pervious and incapable of retaining water there? Was that considered? [448]

A. The canal section would be searched for some distance opposite this Hust seep, looking for a possible source from the canal.

Q. All right. Now, do you say that consideration has been given in this particular seep to the porous condition of that west bank in your search for a source of water?

A. I feel sure that they would have paid attention to any porous spots in the canal anywhere near opposite that Hust place.

Q. All right, you are the superintendent of the Project, concerned with the safety of these canals. Has any report been made to you that the engineers or your ditch riders or your water masters have ever made any investigation of that porous west bank of that canal as contributing to the flow going out in the Hust field?

A. No, that is a greater distance than would likely be considered——

Q. Well,——

Mr. Hess: Just a minute. Let him answer.

Mr. P. J. Gallagher: All right. I beg your pardon.

A. ——until the seep showed larger in amount or being muddy.

Q. What you are testifying to, then, Mr. Newell, is office practice or office theory and not based upon

(Testimony of R. J. Newell.)

any report that has been made to you as to the activities or diligence of your [449] field men, is that true?

Mr. Hess: Object to that as assuming a state of facts not existing in the evidence at all. He was out there on the ground and was——

The Court: Overruled.

Mr. P. J. Gallagher: Will you answer that question?

A. Will you read it, please.

The Court: Read it.

(Pending question read.)

A. This seep in the Hust place has been discussed with Mr. Spofford.

Q. (By Mr. P. J. Gallagher): That is one of your other men? A. Yes, sir.

Q. But you have not given it any personal attention at all yourself, have you?

A. That is correct.

Q. And you are testifying now as to what Mr. Spofford, whoever he might be, has given you as his conclusions as to what should take place?

A. That is right. If Mr. Spofford considers that leak dangerous, then he will call on us to join him in looking at it.

Q. I see. And you think he will? You presume he will? Do you want to answer that? You are assuming that Mr. Spofford will report when he finds—— [450]

A. Yes, I believe he will.

Q. All right. Now, if your assumption is right

(Testimony of R. J. Newell.)

that the water which percolates into the west bank of that canal immediately returns to the canal after the bank is dry, how, then, do you account for the first break in the canal that took out the whole segment of the canal over a distance of some 30 feet on top? How do you account for that break?

A. I believe that the first break was caused by a condition below the bottom of the canal under the outside bank.

Q. All right, will you describe the condition you think existed there?

A. There must have been a stratum of material that when saturated lost its stability and ability to hold up the canal bank.

Q. All right, where would the water come from that saturated that segment?

A. Down through cracks in the intervening layer between the bottom of the canal and this particular stratum.

Q. That is, you are now assuming that there was a porous stratum underlying the bed of the canal?

A. I get tangled up with the term "porous," but there was a weak stratum under there which, when saturated, would not support the bank.

Q. All right; and why would it be weak? If you don't like the word "porous," why would it be weak? [451]

A. On account of the character of the material itself that was not sufficiently stable when saturated.

Q. When saturated. And where, again, would the water come from to saturate it?

(Testimony of R. J. Newell.)

A. Down through cracks or crevices in the bottom of the canal.

Q. You are not prepared to say that that water would not come from the source in the west bank of the canal that would seep in there, are you?

A. I can't believe that a stratum that is exposed in the upper bank would be connected with another stratum that is under the lower bank at considerably greater depth.

Q. What makes you say at a considerably greater depth? Have you seen the pictures that have been taken in this case, the exhibits? Will you let me see some of those first pictures of the wash? Will you hand him Exhibits Nos. 28, 29 and 30. Do you discover in those exhibits the stratum that forms the bottom of the canal there, Mr. Newell?

A. I think so.

Q. And that immediately underlies the bottom of the canal, does it not, that stratum?

A. Yes, sir, that is the hard stratum.

Q. Yes. Sandstone, would you say? Or did you examine it?

A. We examined it. It is apparently part of the Payette formation, but I am not a geologist, sir.

Q. I see. Now, looking at Exhibit 80, that drawing there would indicate that that stratum is in the bottom of the canal in a position as shown by the photographs Exhibits 28, 29 and 30; that is true?

A. There is an indication of broken material in Exhibit 28, which is still somewhat under the bottom grade of the canal.

(Testimony of R. J. Newell.)

Q. And that is the stratum you say became weakened to the point where it would not support the structure and was the proximate cause of the bank going out?

A. This broken material of the sandstone or Payette formation would never get weak enough so that it would not hold up the bank.

Q. No matter how much water you poured into it?

A. That is my opinion, yes, sir.

Q. Well, then, all right, why did the bank go out? If that will hold the bank, why did it go out?

A. Because there was a different character of material deeper under the bottom of the canal that was not of that same character.

Q. You think a stratum below what is exhibited in Exhibits 28, 29 and 30 was the fault?

A. I find it difficult to fit elevations to these photographs.

Q. Let's get cleared up on that. Now, do you think there was a faulty construction above the bottom of the canal, as shown in those Exhibits 28, 29 and 30? [453]

A. The exposed part of this hard layer in the excavated section can well have been broken up somewhat.

Q. Well, now, that doesn't answer my question so I can understand it. You testified, Mr. Newell, that the ditch went out, in your opinion, because it was built on a structure that was insufficient to hold it. Now, where would that structure be in relation to the bottom of the canal?

(Testimony of R. J. Newell.)

A. It was from four to six feet below the bottom of the canal.

Q. You mean below the sandstone?

A. That is right.

Q. Away down there? A. That is right.

Q. Then the sandstone layer would be between your weak section and the base under the bank, wouldn't it?

A. And the bottom of the canal, yes sir.

Q. And you think there was a fault away down low that took this thing out? A. Yes, sir.

Q. You think it got its water from cracks in the bottom of the canal?

A. I think it very well could, yes, sir.

Q. And that that would mean it would have to seep through the structure or the stratum that is exposed in those pictures, Exhibits 28, 29 and 30, or come through the side of the canal?

A. It would have to find its way down from the canal into [454] this weaker layer.

Q. I see. And it is your theory and your opinion that it did not come through this porous side of the canal shown exposed here, but did find its way through the bottom of the canal?

A. That is my opinion, that it would have been much easier for water to find its way from the canal through a layer of hard material, somewhat broken, in the bottom than it would to have found its way from one porous layer to a possible other porous layer back in the sidehill.

Q. Well, then, naturally, where the canal is built,

(Testimony of R. J. Newell.)

this porous layer that you say existed must have been discernible, your contractor and your engineers would have seen that if they had been looking?

A. I insist that if they had seen the porous layer, why, they would have corrected it, and if they hadn't seen it there would have been serious leakage and early failure when water was turned in.

Q. Then your conclusion is that if the engineers and contractor did not see this porous structure and did not seal it then it wasn't there; otherwise if they had seen it they would have sealed it, and because they did not seal it it was not there?

A. If they had seen it they would have sealed it, and if they did not we would have lost the canal.

Q. Well, you did lose the canal, didn't you?

A. After twelve years.

Q. Yes; and you can't attribute any other cause to losing the canal than water seeping under the base?

A. You are familiar with our most common cause of failure,——

Q. No. A. ——gopher holes.

Q. Well, that isn't in this case. You don't contend that there are any gopher holes straight down 10 feet, do you?

A. Oh, I doubt that it was a gopher hole, but it would not be impossible.

Mr. P. J. Gallagher: Well, let's leave it with the gopher holes. No further questions.

Mr. Hess: That is all, Mr. Newell.

(Witness excused.)

